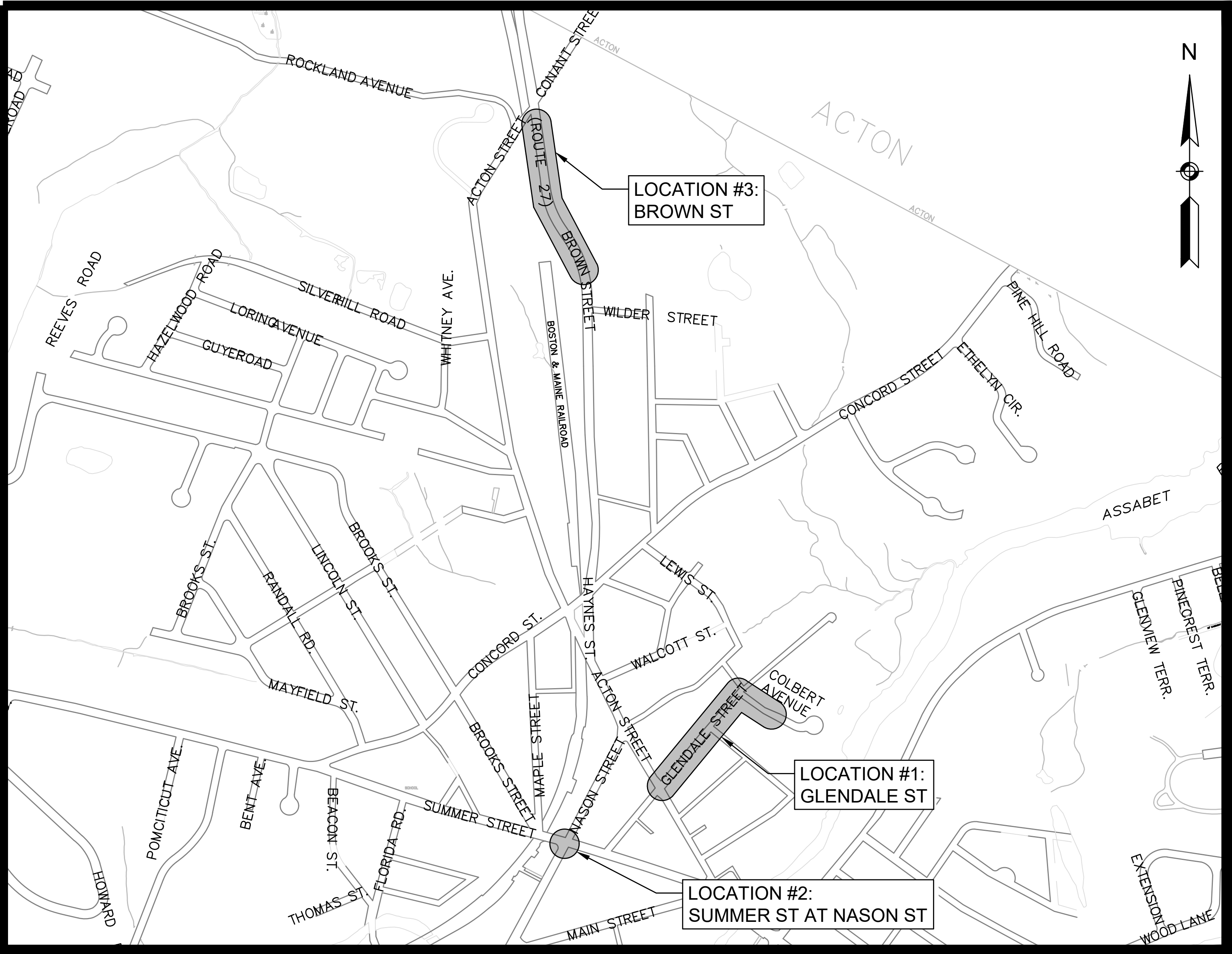



# 2022 COMPLETE STREETS SIDEWALK & PEDESTRIAN IMPROVEMENTS MAYNARD, MASSACHUSETTS

MAYNARD  
PEDESTRIAN IMPROVEMENTS  
TITLE SHEET & INDEX  
SHEET 1 OF 18

INDEX	
SHEET NO.	DESCRIPTION
1	TITLE SHEET & INDEX
2 - 5	LOCATION #1: GLENDALE AT ACTON
6	LOCATION #2: SUMMER AT NASON
7 - 9	LOCATION #3: BROWN ST
10 - 13	TEMPORARY TRAFFIC CONTROL PLANS
14 - 16	CONSTRUCTION DETAILS
17 - 18	WHEELCHAIR RAMP DETAILS

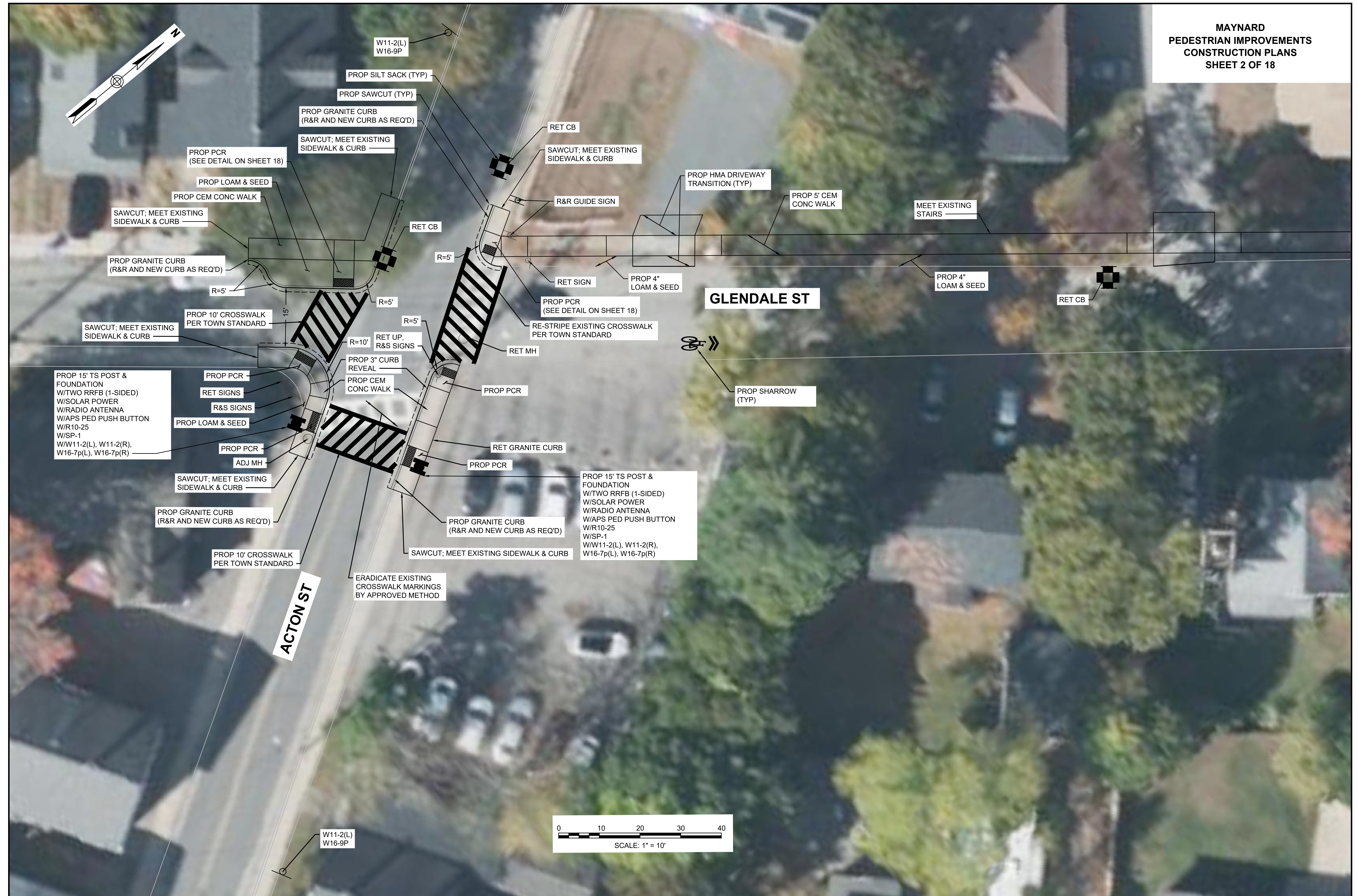


LEGEND	
ADJ	ADJUST
CB	CATCH BASIN
CEM CONC	CEMENT CONCRETE
EXIST	EXISTING
GRAN	GRANITE
L	LENGTH
MH	MANHOLE
PB	PULL BOX
PED	PEDESTRIAN
PROP	PROPOSED
R	RADIUS
R&R	REMOVE AND RESET
R&S	REMOVE AND STACK
REMOD	REMODEL
REQ'D	REQUIRED
RET	RETAIN
TRANS	TRANSITION
TS	TRAFFIC SIGNAL
UP	UTILITY POLE
WCR	WHEELCHAIR RAMP

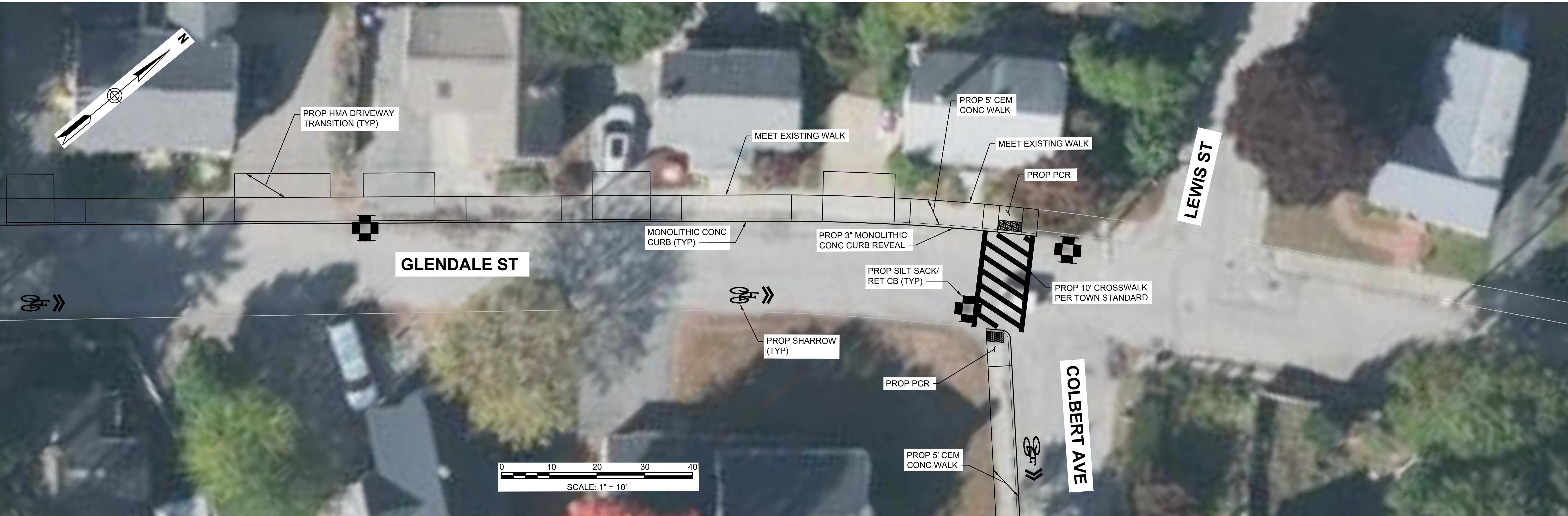
DATE	DESCRIPTION	REV #
<div><div></div><div><b>Vanasse Hangen Brustlin, Inc.</b> 101 Walnut St., PO Box 9151 Watertown, MA 02472 617.924.1770 FAX 617.924.2286</div></div>		
DESIGNED BY GPM	APPROVED BY -	SHEET OF 1 18
DRAWN BY GPM	DTG CHECKED BY -	VHB CAD FILE NAME 12293.00_CS Cover.dwg
CHECKED BY WPA	DATE May 17, 2022	JOB NO. 12293.00



MAYNARD  
PEDESTRIAN IMPROVEMENTS  
CONSTRUCTION PLANS  
SHEET 2 OF 18










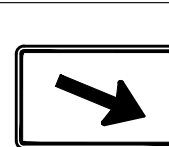

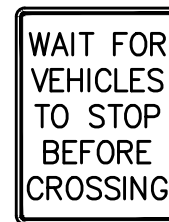




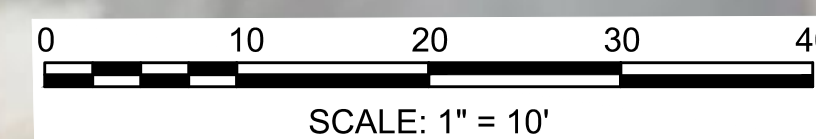
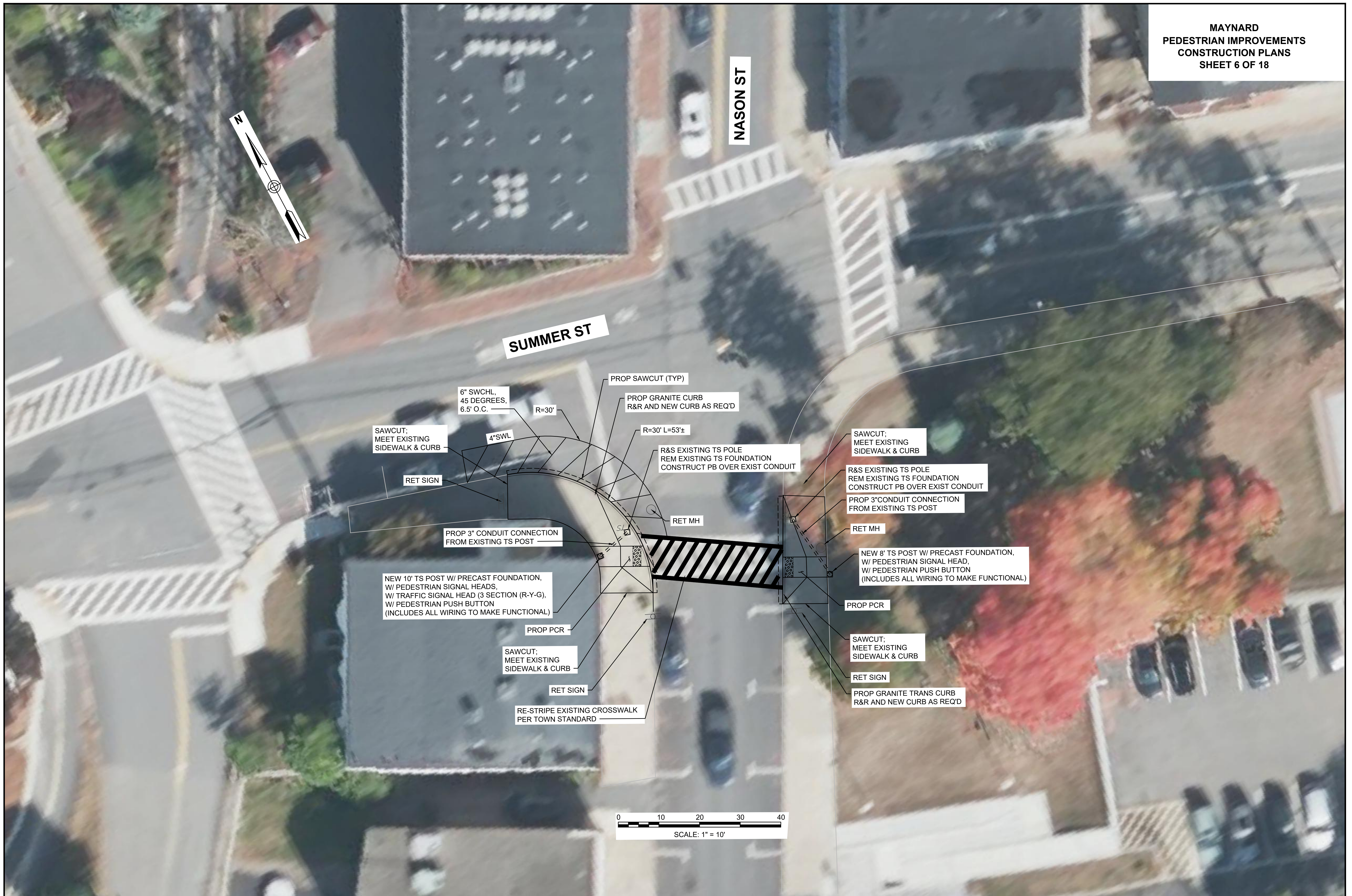
MAYNARD  
PEDESTRIAN IMPROVEMENTS  
CONSTRUCTION PLANS  
SHEET 4 OF 18





TRAFFIC SIGN SUMMARY													
IDENTIFI- CATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			NUMBER OF SIGNS REQUIRED	COLOR			POST SIZE AND NUMBER REQUIRED	UNIT AREA (S.F.)	AREA IN SQUARE FEET
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.		BACK- GROUND	LEGEND	BORDER			
R10-25	9"	12"		SEE FHWA "STANDARD HIGHWAY SIGNS, <u>2004 EDITION"; AS AMENDED</u>			2	WHITE	BLACK	BLACK	2 MTD ON TS POST	0.75	1.50
W11-2(L)	30"	30"					4	FLOURSCENT YELLOW- GREEN	BLACK	BLACK	P5-2 2 MTD ON TS POST	6.25	25.00
W11-2(R)	30"	30"					2	FLOURSCENT YELLOW- GREEN	BLACK	BLACK	2 MTD ON TS POST	6.25	12.50
W16-7p(L)	24"	12"					2	FLOURSCENT YELLOW- GREEN	BLACK	BLACK	2 MTD ON TS POST	2.00	4.00
W16-7p(R)	24"	12"					2	FLOURSCENT YELLOW- GREEN	BLACK	BLACK	2 MTD ON TS POST	2.00	4.00
W16-9p	24"	12"					2	FLOURSCENT YELLOW- GREEN	BLACK	BLACK	2 MTD W/OTHERS	2.00	4.00
SP-1	9"	12"		1" C 1" C 1" C 1" C 1" C	1.5" 1" 1" 1" 1.5"	N/A	2	YELLOW	BLACK	BLACK	2 MTD ON TS POST	0.75	1.50





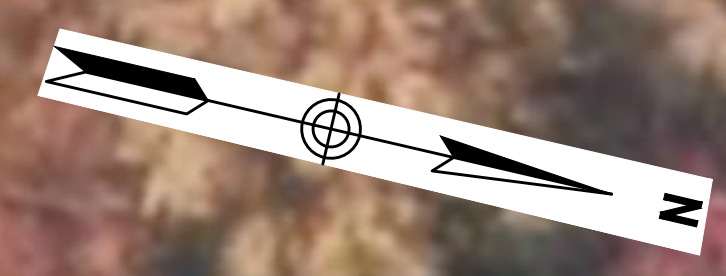






MAYNARD  
PEDESTRIAN IMPROVEMENTS  
CONSTRUCTION PLANS  
SHEET 8 OF 18

PROP TS POST & FOUNDATION  
W/ONE RRFB (1-SIDED)  
W/SOLAR POWER  
W/RADIO ANTENNA  
W/S1-1(L), W16-9p

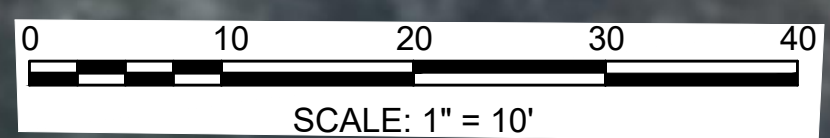


PROP 5' CEM  
CONC WALK

PROP MONOLITHIC  
CONC CURB (TYP)

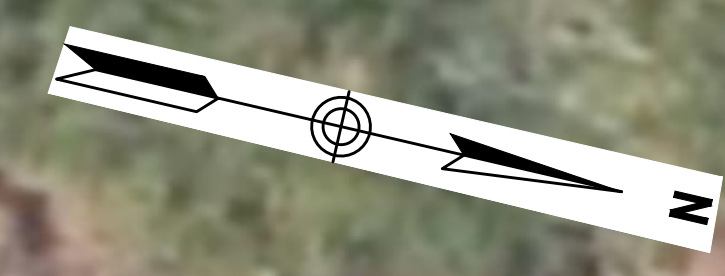
BROWN STREET

NOTE:  
-TREES EFFECTED BY PROPOSED SIDEWALK SHALL BE  
COORDINATED WITH THE TOWN TREE WARDEN.



12293.00\_CS PLAN.DWG Plotted on 19-May-2022 8:22 AM

ACTON STREET



MEET EXISTING  
BIKE PATH

R&R CURVE  
AHEAD SIGN

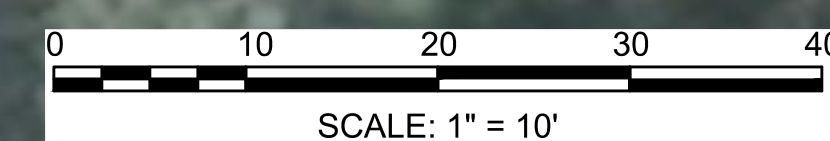
PROP 5' CEM  
CONC WALK

PROP MONLITHIC  
CONC CURB (TYP)






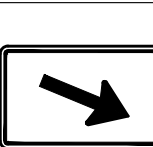

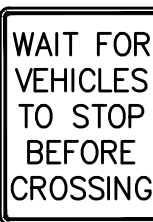
PROP END CURB

BROWN STREET

NOTE:  
-TREES EFFECTED BY PROPOSED SIDEWALK SHALL BE  
COORDINATED WITH THE TOWN TREE WARDEN.





TRAFFIC SIGN SUMMARY													
IDENTIFI- CATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			NUMBER OF SIGNS REQUIRED	COLOR			POST SIZE AND NUMBER REQUIRED	UNIT AREA (S.F.)	AREA IN SQUARE FEET
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.		BACK- GROUND	LEGEND	BORDER			
R10-25	9"	12"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			2	WHITE	BLACK	BLACK	2 MTD ON TS POST	0.75	1.50
W11-2(L)	30"	30"					4	FLOURSCENT YELLOW- GREEN	BLACK	BLACK	4 MTD ON TS POST	6.25	25.00
W11-2(R)	30"	30"					2	FLOURSCENT YELLOW- GREEN	BLACK	BLACK	2 MTD ON TS POST	6.25	12.50
W16-7p(L)	24"	12"					2	FLOURSCENT YELLOW- GREEN	BLACK	BLACK	2 MTD ON TS POST	2.00	4.00
W16-7p(R)	24"	12"					2	FLOURSCENT YELLOW- GREEN	BLACK	BLACK	2 MTD ON TS POST	2.00	4.00
W16-9p	24"	12"					2	FLOURSCENT YELLOW- GREEN	BLACK	BLACK	2 MTD W/OTHERS	2.00	4.00
SP-1	9"	12"		1" C 1" C 1" C 1" C 1" C	1.5" 1" 1" 1" 1.5"	N/A	2	YELLOW	BLACK	BLACK	2 MTD ON TS POST	0.75	1.50



GENERAL NOTES

1. ALL CONSTRUCTION SIGNING, TEMPORARY TRAFFIC CONTROL DEVICES, AND ROADSIDE ELEMENTS SHALL CONFORM WITH THE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AS AMENDED, THE MASSDOT STANDARD DETAILS AND DRAWINGS FOR THE DEVELOPMENT OF TEMPORARY TRAFFIC CONTROL PLANS, THE LATEST REVISIONS OF THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, (AASHTO) ROADSIDE DESIGN GUIDE, AASHTO POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS, AND NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM (NCHRP) REPORT 350 OR THE AASHTO MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).
2. WORK HOURS SHALL BE 7:00AM TO 3:00PM MONDAY THRU FRIDAY UNLESS OTHERWISE APPROVED BY MASSDOT AND THE TOWN. NO WORK IMPACTING THE TRAVEL WAY WILL BE ALLOWED DURING PEAK TRAFFIC PERIODS. PEAK PERIODS ARE DEFINED AS MONDAY THRU FRIDAY, 6:00AM TO 9:00AM AND 3:00PM TO 7:00PM.
3. NO WORK SHALL OCCUR WITHIN THE PUBLIC WAY THE DAY BEFORE, AFTER OR ON A STATE RECOGNIZED HOLIDAY UNLESS OTHERWISE APPROVED BY THE ENGINEER.
4. ALL TEMPORARY PEDESTRIAN PATHWAYS SHALL COMPLY FULLY WITH ALL REQUIREMENTS OF THE MUTCD AND ALL APPLICABLE MASSACHUSETTS ARCHITECTURAL ACCESS BOARD (MAAB) AND AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG) REQUIREMENTS AND PUBLIC RIGHTS-OF WAY ACCESSIBILITY GUIDELINES (PROWAG).
5. ALL DRUMS OUTSIDE TAPERS SHALL BE SET AT 20' ON CENTER MAX. UNLESS OTHERWISE NOTED OR ADJUSTED BY THE ENGINEER.
6. ALL DRUMS SHALL BE APPROXIMATELY PLACED AND MOVED AS NECESSARY TO MAINTAIN SAFE AND REASONABLE ABUTTER ACCESS. WORK MAY REQUIRE ADDITIONAL SIGNS, DRUMS AND OTHER TRAFFIC CONTROL DEVICES, GRADING AND TEMPORARY PAVEMENT FOR PASSAGE OF PEDESTRIAN, VEHICULAR AND EMERGENCY TRAFFIC THROUGH THE WORK AREAS, BOTH DURING AND AFTER WORKING HOURS, TO MAINTAIN SUCH ACCESS.
7. THE FIRST 10 DRUMS ON TAPERS SHALL BE REFLECTORIZED DRUMS WITH SEQUENTIAL FLASHING WARNING LIGHTS AND SHALL BE OPERATING, AT A MINIMUM, BETWEEN DUSK AND DAWN, WHEN TAPER IS DEPLOYED.
8. REFLECTORIZED CONES SHALL BE A MINIMUM OF 36 INCHES IN HEIGHT.
9. CONES MAY BE USED IN LIEU OF DRUMS OUTSIDE OF TAPER AREAS.
10. THE CONTRACTOR SHALL NOTIFY EACH ABUTTER AT LEAST 24 HOURS IN ADVANCE OF THE START OF ANY WORK THAT WILL REQUIRE THE TEMPORARY CLOSURE OR RESTRICTION OF ACCESS.
11. FOR DROP-OFFS 3" OR LESS WITHIN THE CLEAR ZONE, CONDITION MAY BE MITIGATED WITH W8-9 (LOW SHOULDER) SIGN OR TEMPORARY CHANNELIZATION DEVICES. FOR DROP-OFFS GREATER THAN 3" BUT NO MORE THAN 36", DETERMINE WHETHER IT IS MORE COST EFFECTIVE TO INSTALL BOTH W8-9 SIGN AND TEMPORARY CHANNELIZATION DEVICES IN ACCORDANCE WITH MASSDOT WORK ZONE SAFETY GUIDE OR W8-9 SIGN WITH A 2H:1V (MIN) WEDGE OR TO REMOVE THE HAZARD. FOR DROP-OFFS 36" OR GREATER USE TEMPORARY BARRIER IN ACCORDANCE WITH MASSDOT WORK ZONE POSITIVE PROTECTION GUIDELINES.
12. CONTRACTOR SHALL STAGE WORK SUCH THAT A DROP-OFF OF NO MORE THAN 3" AT THE END OF EACH WORK DAY EXISTS WITHIN THE CLEAR ZONE AT ANY TIME AND ENSURE DROP-OFF IS MITIGATED WITHOUT BARRIER PER NOTE 11.
13. CONSTRUCTION CLEAR ZONE SHALL BE IN ACCORDANCE WITH MASSDOT BOSTON TRAFFIC GUIDELINES AS FOLLOWS:

4' IF POSTED SPEED IS LESS THAN 35 MPH

8' IF POSTED SPEED IS 35 MPH



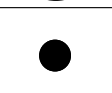
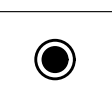
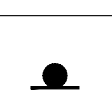


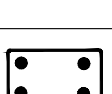

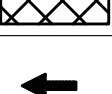
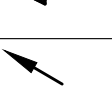
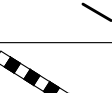
15' IF POSTED SPEED IS 40 MPH

20' IF POSTED SPEED IS 45 MPH

25' IF POSTED SPEED IS 55 MPH

30' IF POSTED SPEED IS GREATER THAN 55 MPH
14. PROVIDE CLEAR ZONES AROUND TRUCK MOUNTED ATTENUATORS AS REQUIRED BY THE MANUFACTURER.
15. 11' MINIMUM LANE WIDTHS SHALL BE MAINTAINED UNLESS OTHERWISE NOTED.
16. TEMPORARY TRAFFIC CONTROL DEVICES AND SIGNS SHALL BE COVERED OR REMOVED DURING NON-WORKING HOURS WHEN NOT IN USE.
17. SIGNS INSTALLED ON PORTABLE STANDS REQUIRE 12 INCH MINIMUM MOUNTING HEIGHT FROM THE ROADWAY SURFACE TO THE BOTTOM OF THE SIGN.
18. SIGNS INSTALLED ON PORTABLE STANDS PLACED AMONG CHANNELIZATION DEVICES REQUIRE A 36 INCH MINIMUM MOUNTING HEIGHT FROM THE ROADWAY SURFACE TO THE BOTTOM OF THE SIGN.
19. SIGNS MOUNTED ON POSTS REQUIRE A MINIMUM 84 INCH MOUNTING HEIGHT FROM THE ROADWAY OR SIDEWALK SURFACE TO THE BOTTOM OF THE SIGN. CONTRACTOR SHALL MAINTAIN A MINIMUM SIDEWALK HORIZONTAL CLEAR WIDTH OF 36" AT ALL TIMES.
20. ALL SIGNS SHALL BE MOUNTED ON THEIR OWN NCHRP 350 AND/OR MASH CRASH TESTED SIGN SUPPORTS AND INSTALLED IN ACCORDANCE WITH THE MUTCD.
21. ADVISORY SPEED PLAQUES (W13-1p(XX)) SHALL BE USED AS SHOWN AND AS REQUESTED BY THE ENGINEER. POSTED ADVISORY SPEED SHALL BE AS APPROVED BY THE APPROPRIATE AGENCY WITH JURISDICTION OVER THE ROADWAY ON WHICH THE SIGN WILL BE MOUNTED.
22. MA-W20-7b SIGNS SHALL BE REPLACED BY W20-7 SIGNS WHEN FLAGGERS ARE USED IN LIEU OF POLICE OFFICER DETAILS.
23. ARROW BOARD FLASHING CAUTION SHALL FLASH IN FOUR-POINT CAUTION MODE ONLY.
24. W20-1c, MA-R2-10a OR MA-R2-10e SIGNS SHOWN ON ADVANCE SIGN SCHEMATIC MAY BE USED IN LIEU OF THOSE SIGNS SHOWN ON TYPICAL DETAILS ON THE TEMPORARY TRAFFIC CONTROL PLANS IF MINIMUM SIGN SPACING IS MET.
25. CONTRACTOR SHALL SECURE WORK AREAS BY APPROPRIATE MEANS, TO PREVENT UNAUTHORIZED ACCESS AT ALL TIMES.
26. THERE IS NO DESIGNATED BICYCLE LANE ON THE ROADWAY WITHIN THE PROJECT LIMITS. BICYCLES ARE EXPECTED TO SHARE THE ROAD WITH GENERAL VEHICULAR TRAFFIC.
27. NIGHTTIME WORK SHALL REQUIRE PRIOR APPROVAL FROM MASSDOT.
28. ILLUMINATION REQUIRED FOR NIGHTTIME WORK APPROVED BY THE ENGINEER SHALL BE DIFFUSED OR ANTI-GLARE LIGHTING AND IN ACCORDANCE WITH MASSDOT STANDARDS.
29. WHEN UTILIZING TYPICAL TRAFFIC CONTROL DETAILS OR STAGING SETUPS, COVER EXISTING CONFLICTING ADVANCE WARNING SIGNS AS REQUIRED TO COMPLETE THE WORK.
30. CONTRACTOR SHALL NOT ALLOW PUBLIC ACCESS ON PORTIONS OF NEWLY BUILT SIDEWALK UNTIL ALL SIDEWALKS WITHIN THE PROJECT LIMITS ARE FULLY CONSTRUCTED AND ADAAG COMPLIANT OR AS DIRECTED BY THE ENGINEER.

LEGEND

	POLICE OFFICER
	TRAFFIC SIGNAL
	REFLECTORIZED DRUM
	REFLECTORIZED DRUMS WITH SEQUENTIAL FLASHING WARNING LIGHTS (SEE NOTE XX)
	TEMPORARY CONSTRUCTION SIGN
	TRAFFIC CONE
	TYPE III BARRICADE
	ARROW BOARD (AB) (CAUTION)
	WORK AREA (PUBLIC ACCESS RESTRICTED)
	TRAFFIC FLOW
	PEDESTRIAN ROUTE
	TEMPORARY PEDESTRIAN BARRICADE
NTS	NOT TO SCALE

ADVANCE SIGN SPACING

ROADWAY	DISTANCE BETWEEN SIGNS (FEET)			
	A	B	C	D
ALL ROADWAYS	100	50	100	100

LANE TAPER LENGTH FORMULAS

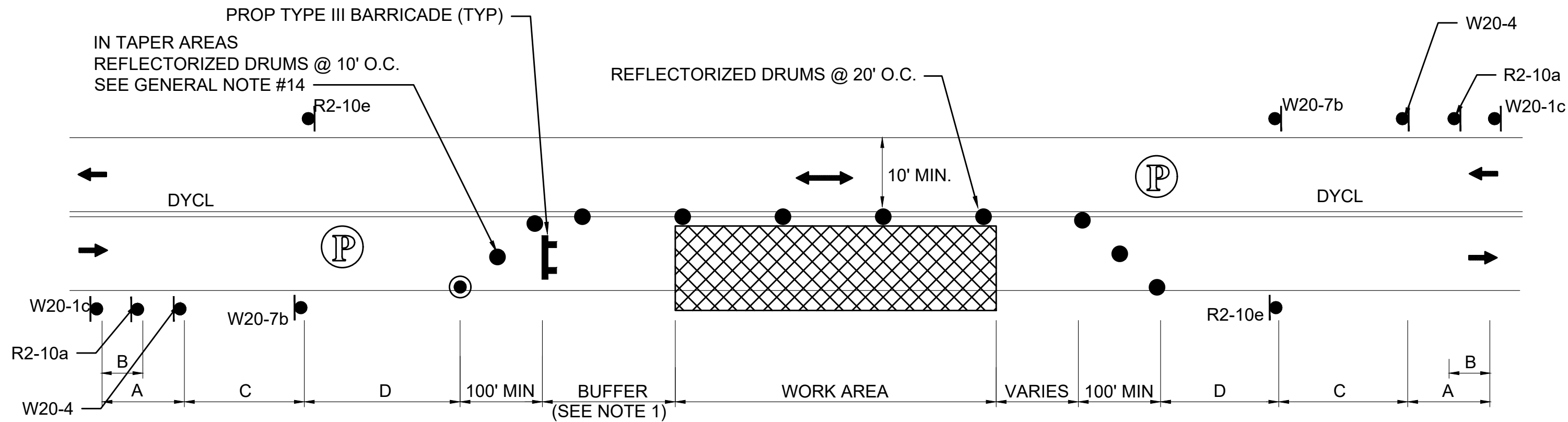
L= TAPER LENGTH IN FEET
W= WIDTH OF ROADWAY TO BE SHIFTED OR REDIRECTED IN FEET
S= POSTED SPEED LIMIT IN MPH
POSTED SPEED
40 MPH OR LESS
$L = \frac{WS^2}{60}$

BUFFER SPACING

SPEED (MPH)	DISTANCE (FEET)
15	80
20	115
25	155
30	200
35	250

MAYNARD  
PEDESTRIAN IMPROVEMENTS  
TEMPORARY TRAFFIC CONTROL PLANS  
SHEET 10 OF 18

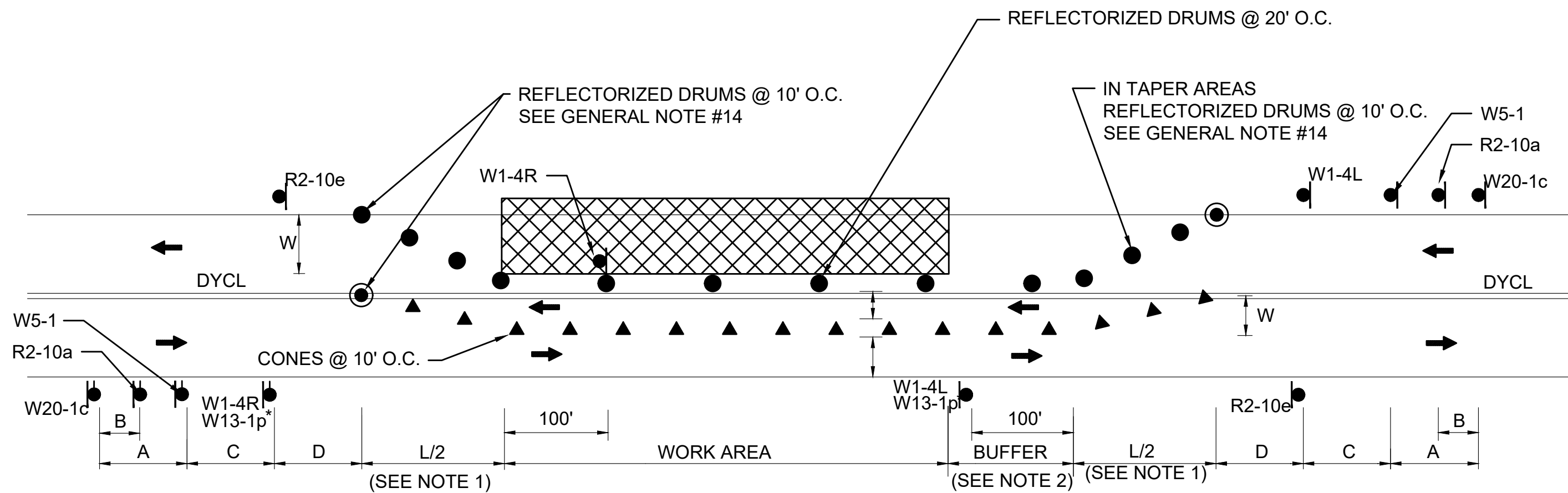




- NOTES:
1. SEE BUFFER SPACING CHART ON TTCP GENERAL NOTES & LEGEND SHEET.
  2. REFER TO ADVANCE SIGN SPACING TABLE ON TTCP GENERAL NOTES & LEGEND SHEET.

TYPICAL TWO-WAY STREET LANE CLOSURE ALTERNATING TRAFFIC

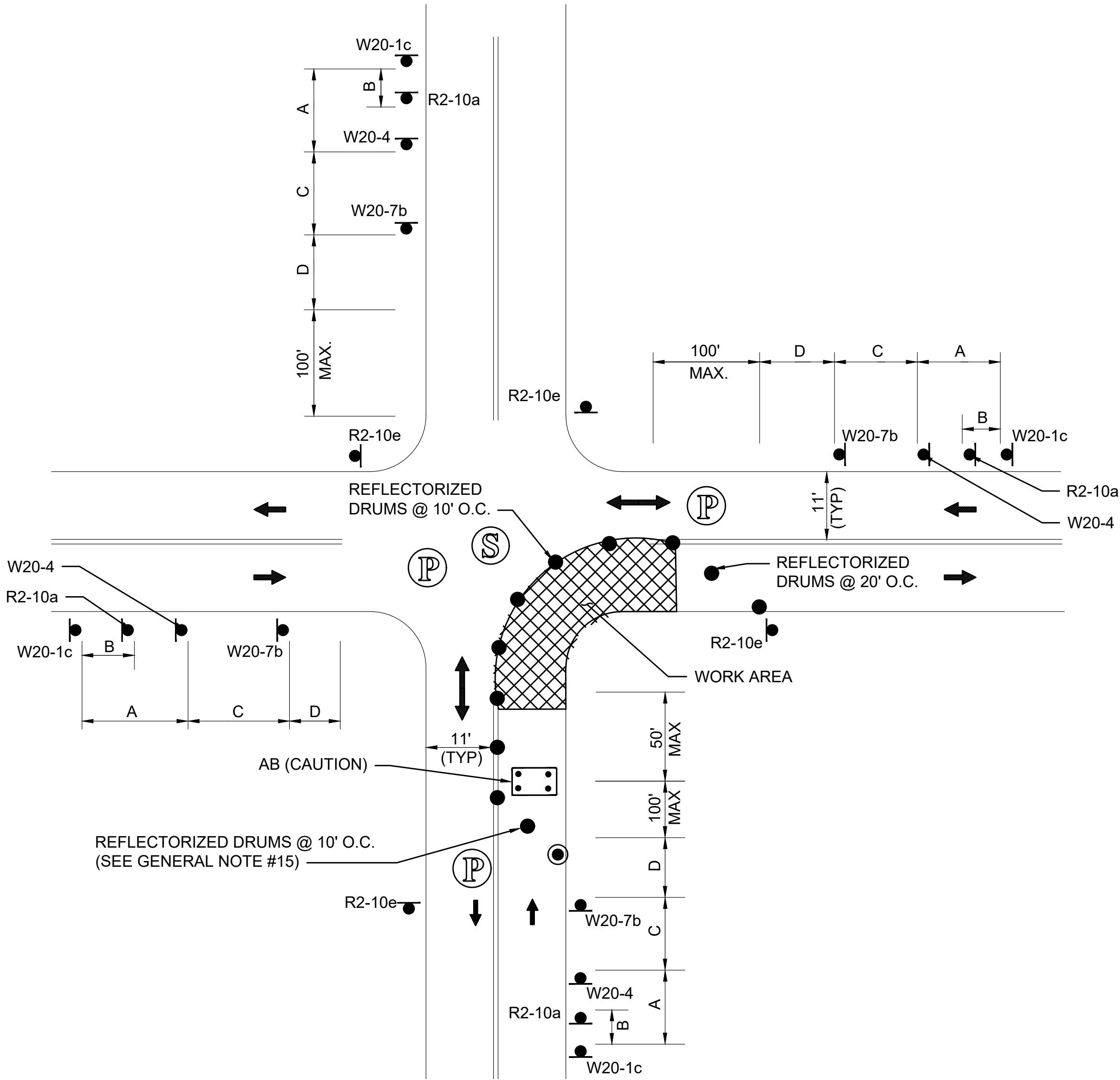
SCALE: N.T.S.



- NOTES:
1. SEE TAPER LENGTH FORUMLA ON TTCP GENERAL NOTES & LEGEND SHEET.
  2. SEE BUFFER SPACING CHART ON TTCP GENERAL NOTES & LEGEND SHEET.
  3. REFER TO ADVANCE SIGN SPACING TABLE ON TTCP GENERAL NOTES & LEGEND SHEET.
  4. \* SEE NOTES TTCP GENERAL NOTES & LEGEND SHEET.

TYPICAL TWO-WAY STREET LANE SHIFT

SCALE: N.T.S.



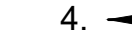
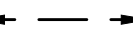

- NOTE:
- ADVANCE WARNING SIGN PLACEMENT TO BE ADJUSTED AS NECESSARY

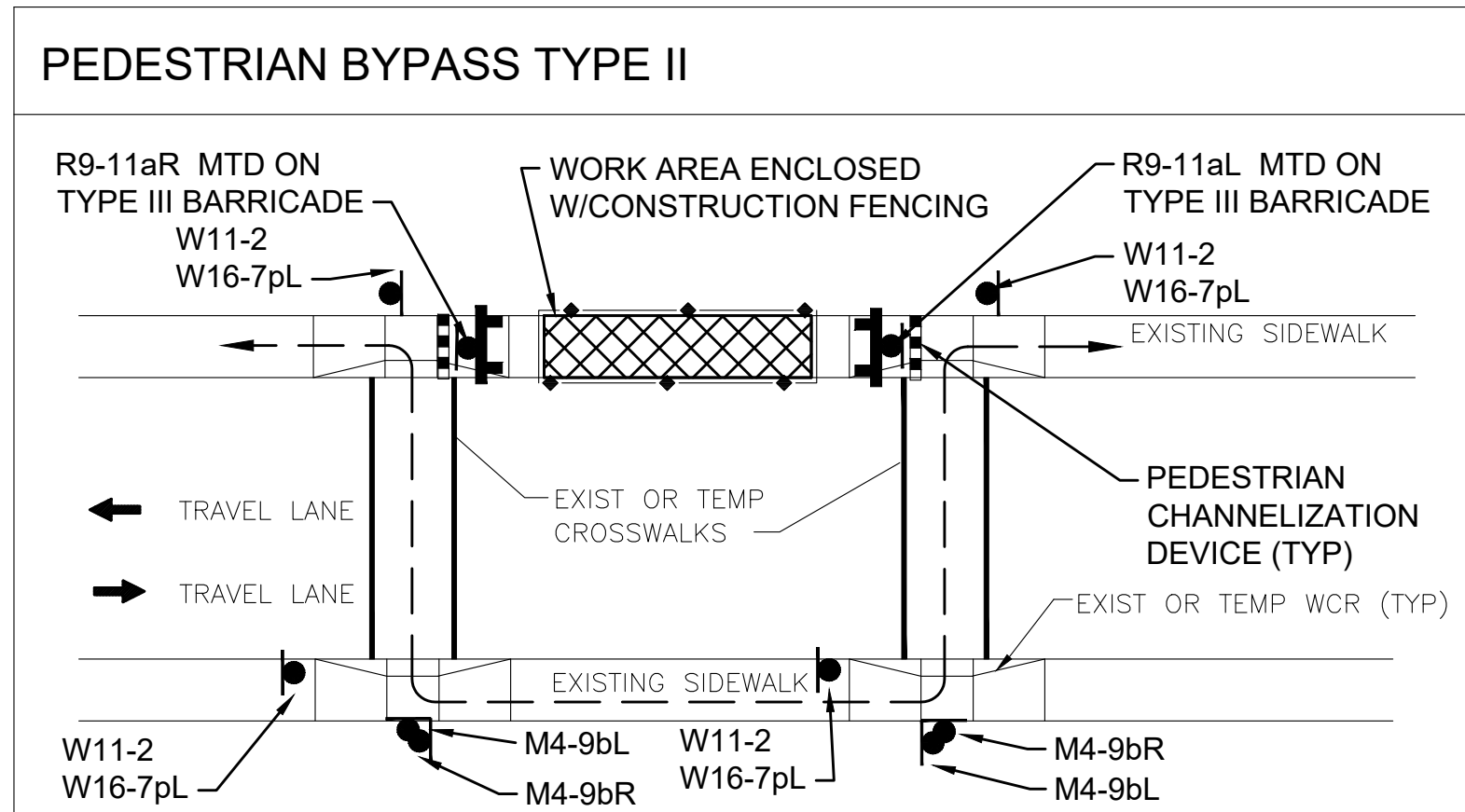
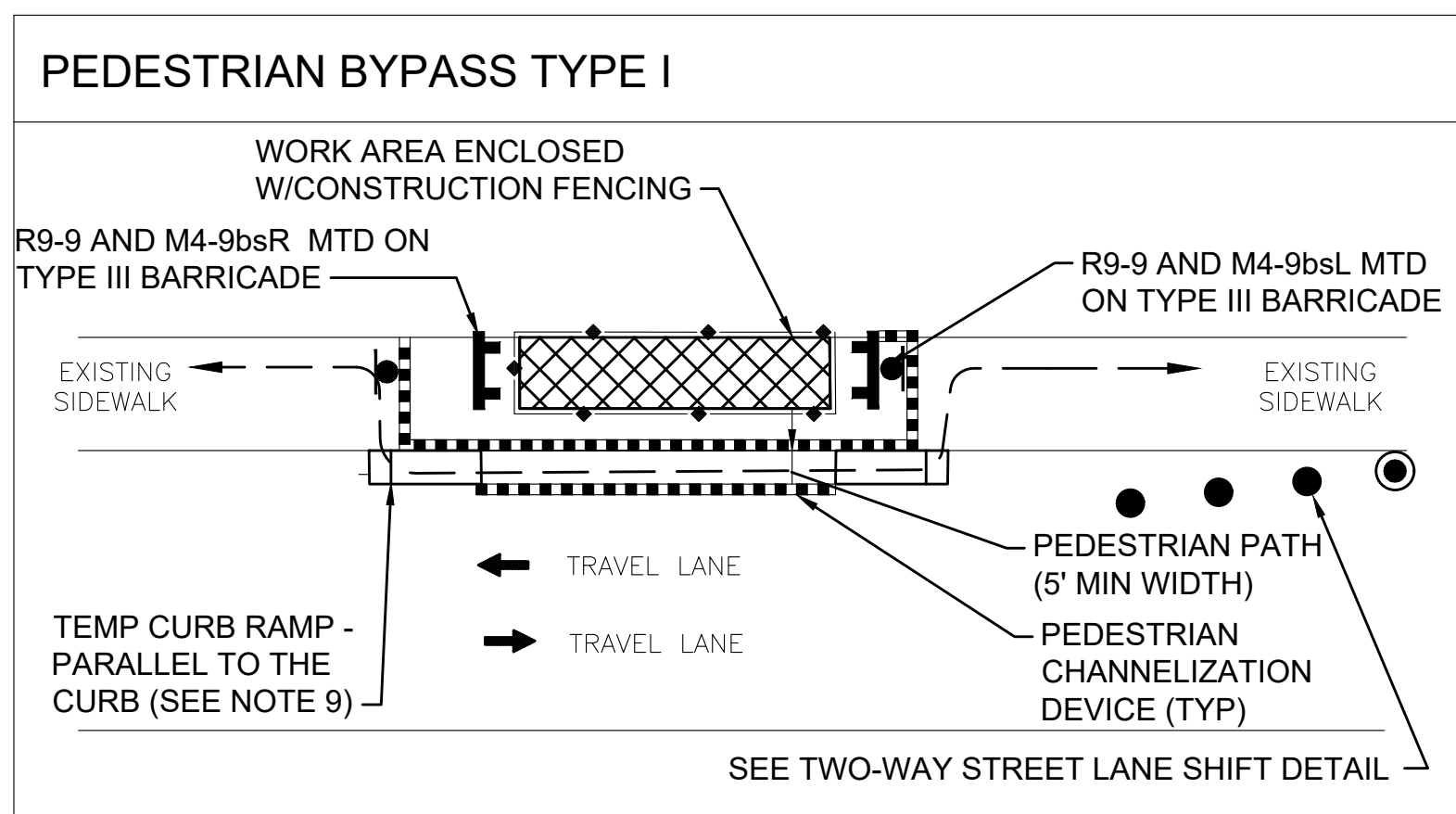
ONE LANE BI-DIRECTIONAL TRAFFIC AT INTERSECTIONS

SCALE: N.T.S.



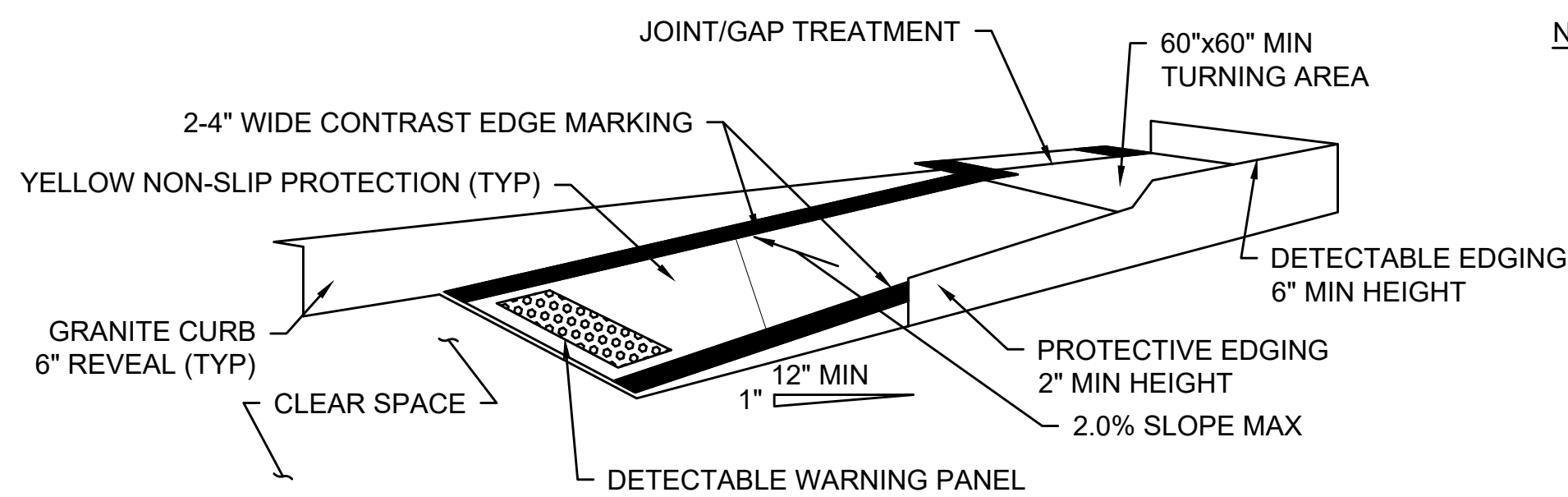
NOTES:

1. ADDITIONAL ADVANCE WARNING SIGNS MAY BE NECESSARY AS DETERMINED BY THE ENGINEER.
2. CONTROLS FOR PEDESTRIAN TRAFFIC ONLY, ARE SHOWN. VEHICULAR TRAFFIC SHALL BE MAINTAINED AS SHOWN ELSEWHERE.
3. STREET LIGHTING SHOULD BE CONSIDERED WHEN LOCATING CONTROL DEVICES.
4.    INDICATES DIRECTION OF PEDESTRIAN TRAVEL.
5. IF THE WORK ZONE DOES NOT PERMIT PEDESTRIANS TO TRAVEL ADJACENT TO IT AS SHOWN IN PEDESTRIAN BYPASS TYPE I, THE APPROPRIATE SIGNS SHALL BE INSTALLED TO CROSS PEDESTRIANS TO THE OPPOSITE SIDE OF THE STREET AT EXISTING CROSSWALKS AS SHOWN IN PEDESTRIAN BYPASS TYPE II, AND AS DIRECTED BY THE ENGINEER.
6. PROPOSED TEMPORARY CROSSWALKS SHALL BE 12" WIDE SURFACE APPLIED TAPE OR REFLECTORIZED PAINT AS DIRECTED BY THE ENGINEER.
7. ALL TEMPORARY PEDESTRIAN PATHWAYS SHALL COMPLY FULLY WITH ALL REQUIREMENTS OF THE MUTCD AND ALL APPLICABLE MAAB AND ADAAG REQUIREMENTS.
8. CONTRACTOR SHALL MAINTAIN AS WIDE OF A PEDESTRIAN ACCESS AS POSSIBLE AT ALL TIMES. EXCEPT WHERE NECESSARY, THE CONTRACTOR MAY TEMPORARILY REDUCE PEDESTRIAN PATHWAYS TO 4 FEET IN WIDTH (EXCLUDING CURB) FOR NO MORE THAN 200 LINEAR FEET AT A TIME IN ACCORDANCE WITH ALL STANDARDS.
9. TEMPORARY WHEELCHAIR RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH MASSDOT, MAAB, AND ADAAG REQUIREMENTS.
10. W11-2 AND W16-7PL SIGNS SHALL BE PROVIDED IF NEW TEMPORARY CROSSWALKS ARE BEING PROVIDED OR AS DIRECTED BY THE ENGINEER.
11. CONTRACTOR SHALL COORDINATE WITH THE TOWN OF DENNIS BEFORE RESTRICTING PARKING. R7-1L AND R7-1R SIGNS SHALL BE USED TO CLOSE PARKING LANES.

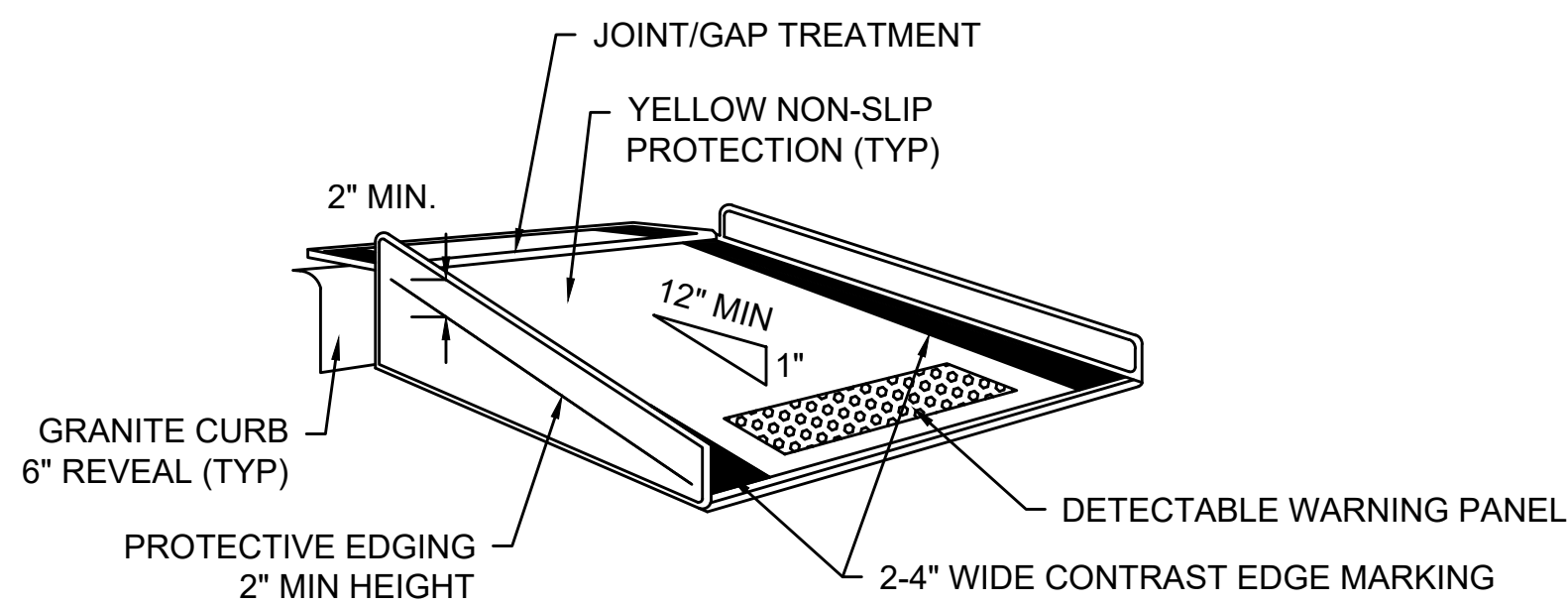


**PEDESTRIAN BYPASS DETAIL**

SCALE: N.T.S.



TEMPORARY CURB RAMP-PARALLEL TO CURB



TEMPORARY CURB RAMP-PERPENDICULAR TO CURB

NOTES:

1. CURB RAMPS SHALL BE 60" MINIMUM WIDTH WITH A FIRM, STABLE AND NON-SLIP SURFACE.
2. PROTECTIVE EDGING WITH A 2" MINIMUM HEIGHT SHALL BE INSTALLED WHEN THE CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN THE CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
3. DETECTABLE EDGING WITH 6" MINIMUM HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
4. THE CURB RAMP WALKWAY AND LANDING AREA SURFACE SHALL BE OF A SOLID CONTINUOUS CONTRASTING COLOR ABUTTING UP TO THE EXISTING SIDEWALK.
5. CURB RAMPS AND LANDINGS SHOULD HAVE A 1:50 (2%) MAX CROSS-SLOPE.
6. CLEAR SPACE OF 48"x48" MINIMUM SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
7. WATER FLOW IN THE GUTTER SYSTEM SHALL HAVE MINIMAL RESTRICTION.
8. LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 0.5" WIDTH.
9. CHANGES BETWEEN SURFACE HEIGHTS SHOULD NOT EXCEED 0.5" LATERAL EDGES SHOULD BE VERTICAL UP TO 0.25" HIGH, AND BEVELED AT 1:2 BETWEEN 0.25" AND 0.5" HEIGHT.
10. IF A TEMPORARY PEDESTRIAN RAMP LEADS TO A CROSSWALK, THEN A DETECTABLE WARNING PAD MUST BE ADHERED TO THE BASE OF THE RAMP. IF IT LEADS TO A PROTECTED PEDESTRIAN BYPASS THAT DOES NOT CONFLICT WITH VEHICULAR TRAFFIC, THEN A PAD SHALL NOT BE INSTALLED ON THE RAMP.

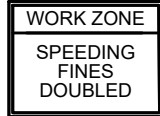
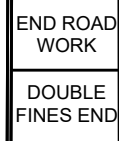





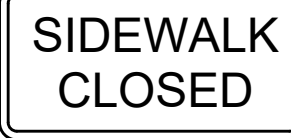
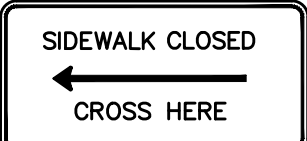
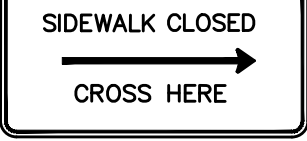










**TEMPORARY CURB RAMPS**

SCALE: NTS

DWG: TTCP3b

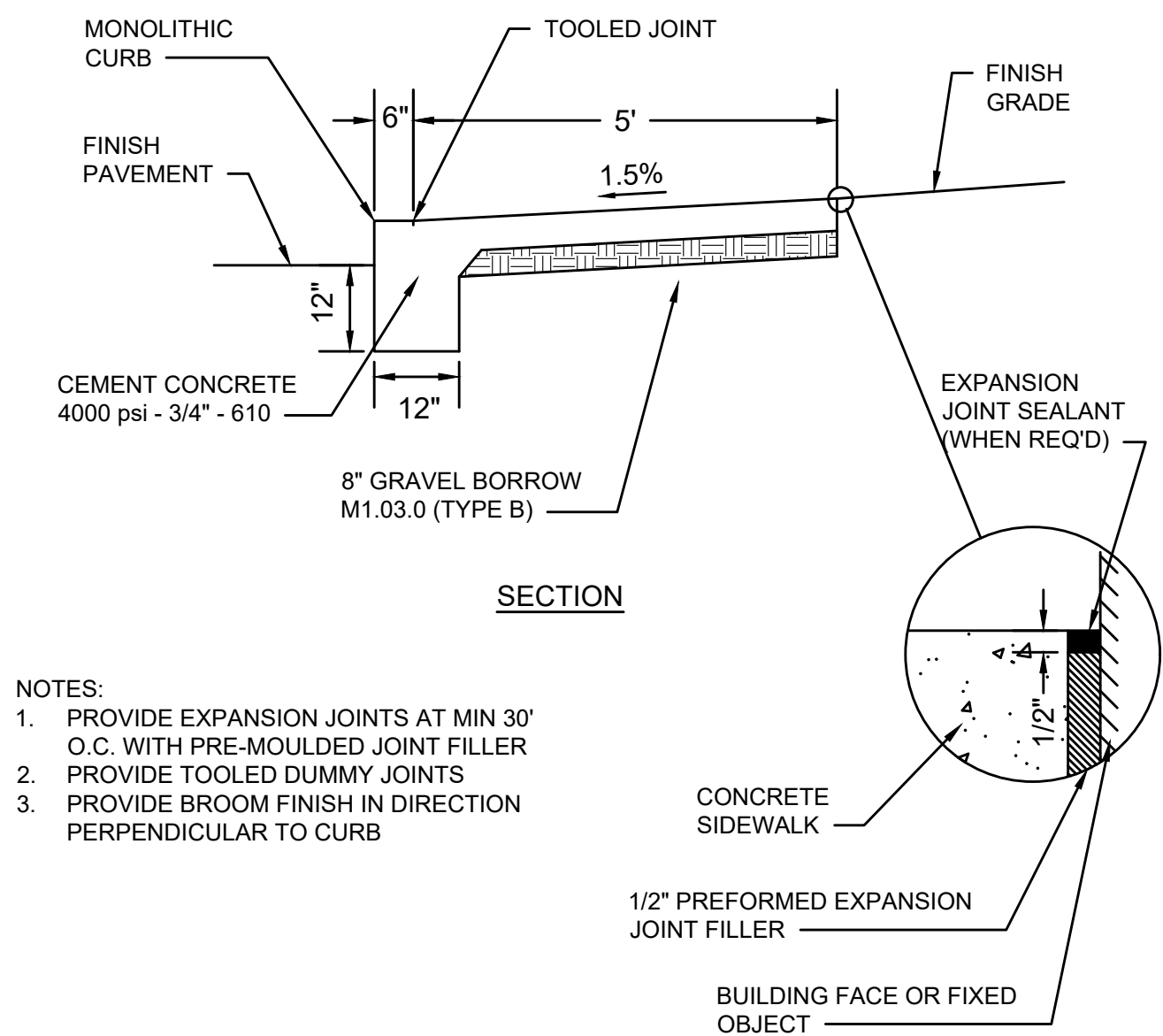
DATE: NOVEMBER 2020



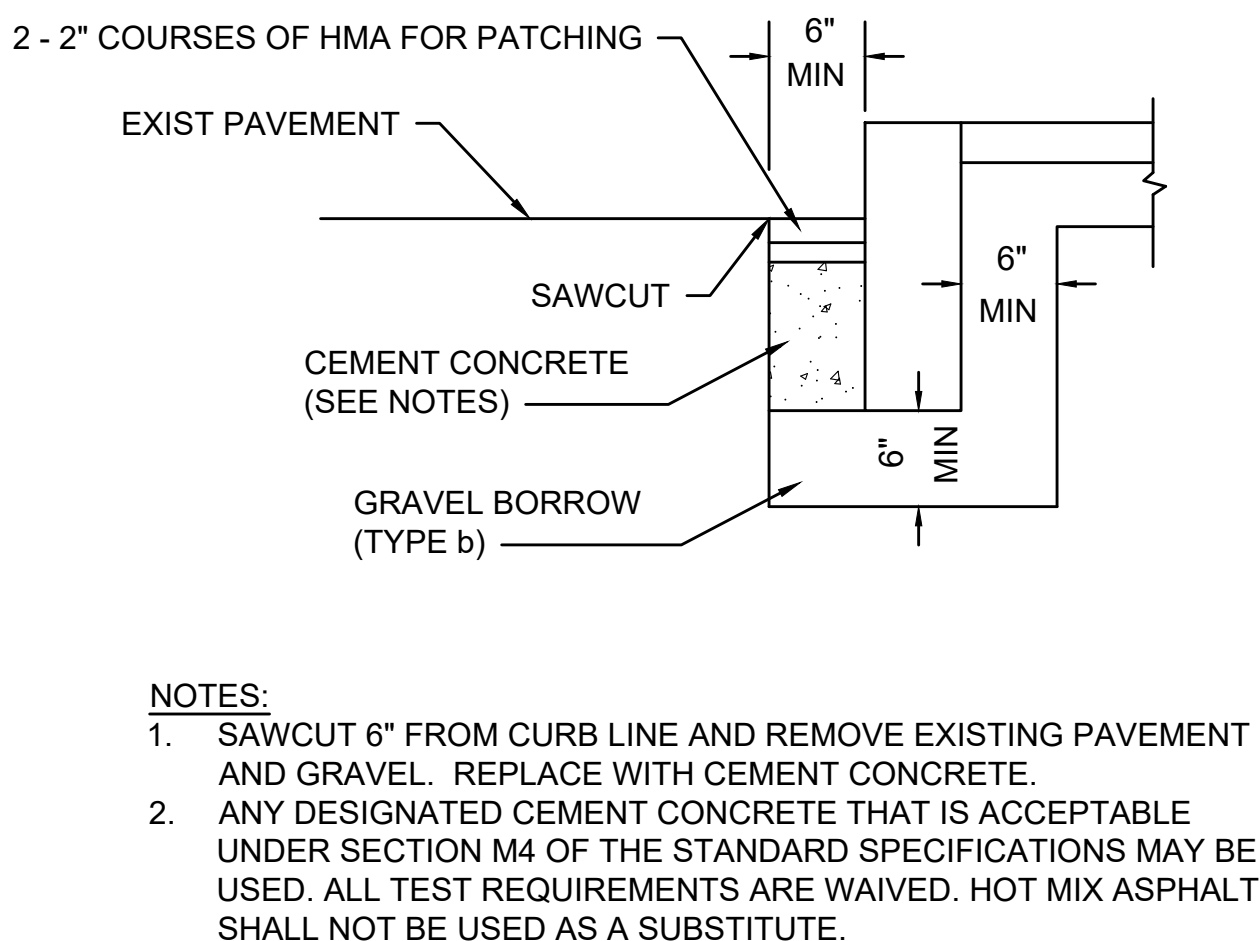
TEMPORARY TRAFFIC CONTROL SIGN SUMMARY									
IDENTIFI- CATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			COLOR		
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.	BACK- GROUND	LEGEND	BORDER
R2-10a	48"	36"		AS PER MASSDOT STANDARD			FLUOR- ESCENT ORANGE --- WHITE	BLACK	BLACK
R2-10e	36"	48"					FLUOR- ESCENT ORANGE --- WHITE	BLACK	BLACK
M4-9bL	30"	24"					FLUOR- ESCENT ORANGE --- WHITE	BLACK	BLACK
M4-9bR	30"	24"					FLUOR- ESCENT ORANGE --- WHITE	BLACK	BLACK
M4-9bsL	30"	24"					FLUOR- ESCENT ORANGE --- WHITE	BLACK	BLACK
M4-9bsR	30"	24"					FLUOR- ESCENT ORANGE --- WHITE	BLACK	BLACK
R9-9	24"	12"					WHITE	BLACK	BLACK
R9-11aL	24"	12"					WHITE	BLACK	BLACK
R9-11aR	24"	12"					WHITE	BLACK	BLACK
W1-4L	36"	36"					FLUOR- ESCENT ORANGE	BLACK	BLACK
W1-4R	36"	36"					FLUOR- ESCENT ORANGE	BLACK	BLACK
W5-1	36"	36"					FLUOR- ESCENT ORANGE	BLACK	BLACK
W11-2	30"	30"					YELLOW	BLACK	BLACK
W13-1p	24"	24"					FLUOR- ESCENT ORANGE	BLACK	BLACK
W16-7pL	24"	12"					YELLOW	BLACK	BLACK
W20-1c	36"	36"					FLUOR- ESCENT ORANGE	BLACK	BLACK
W20-4	36"	36"					FLUOR- ESCENT ORANGE	BLACK	BLACK
MA-W20-7b	36"	36"					FLUOR- ESCENT ORANGE	BLACK	BLACK

NOTES:  
1. HIGH INTENSITY REFLECTIVE SHEETING SHALL BE USED FOR ALL SIGNS. SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION" FOR TEXT DIMENSIONS, AS AMENDED; THE 1977 MASSHIGHWAY DEPARTMENT CONSTRUCTION AND TRAFFIC STANDARD DETAILS, AS AMENDED, FOR SIGNS AND SUPPORTS; THE MASSHIGHWAY DEPARTMENT SIGN LISTINGS 1993 EDITION, AS AMENDED; THE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR MOUNTING REQUIREMENTS; AND THE 2017 MassDOT STANDARD SIGNS BOOK, AS AMENDED.  
2. ALL SIGNS SHOWN GRAPHICALLY FOR INFORMATION ONLY. SIGN VENDOR SHALL FABRICATE ALL SIGNS IN ACCORDANCE WITH THE APPLICABLE STANDARDS.

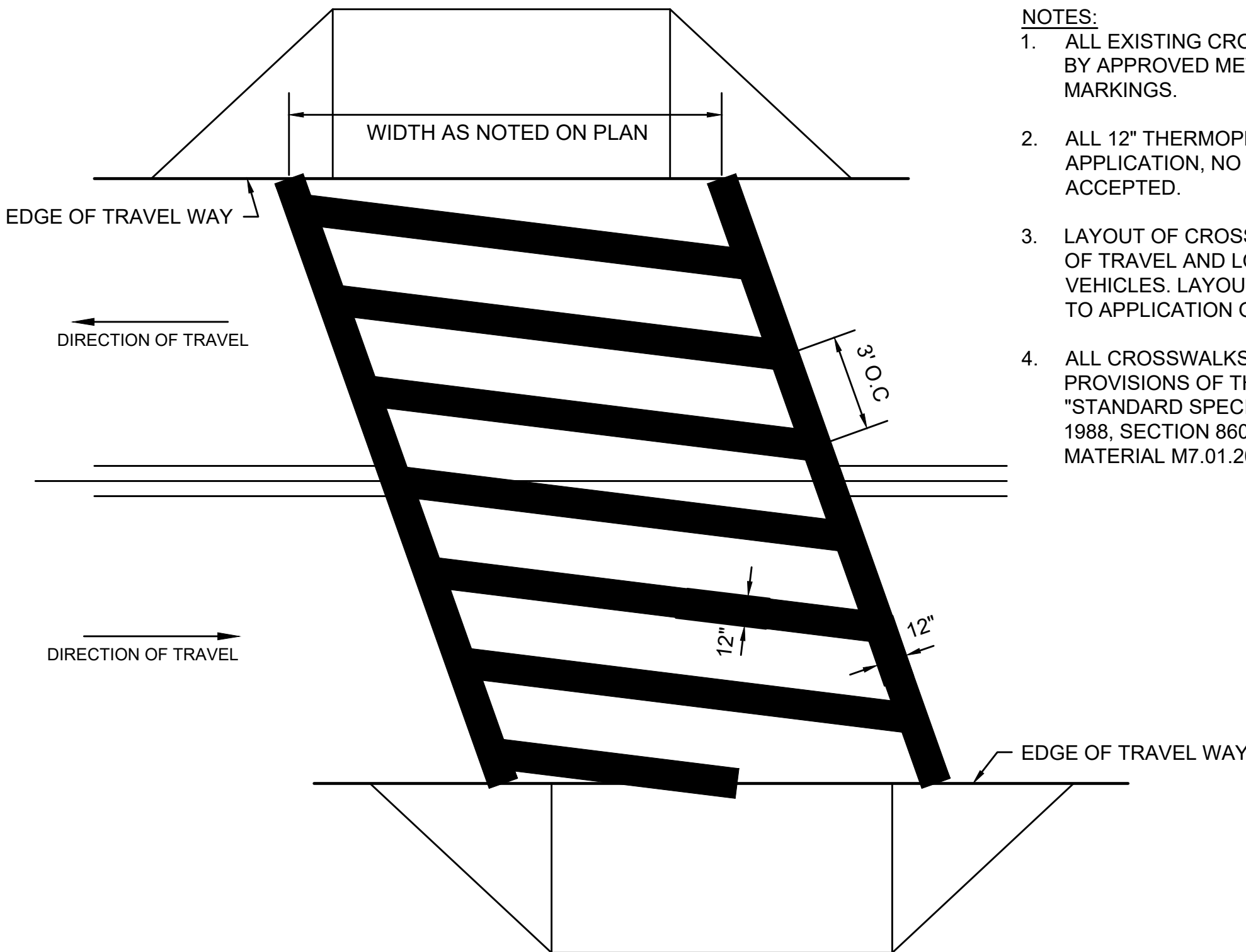




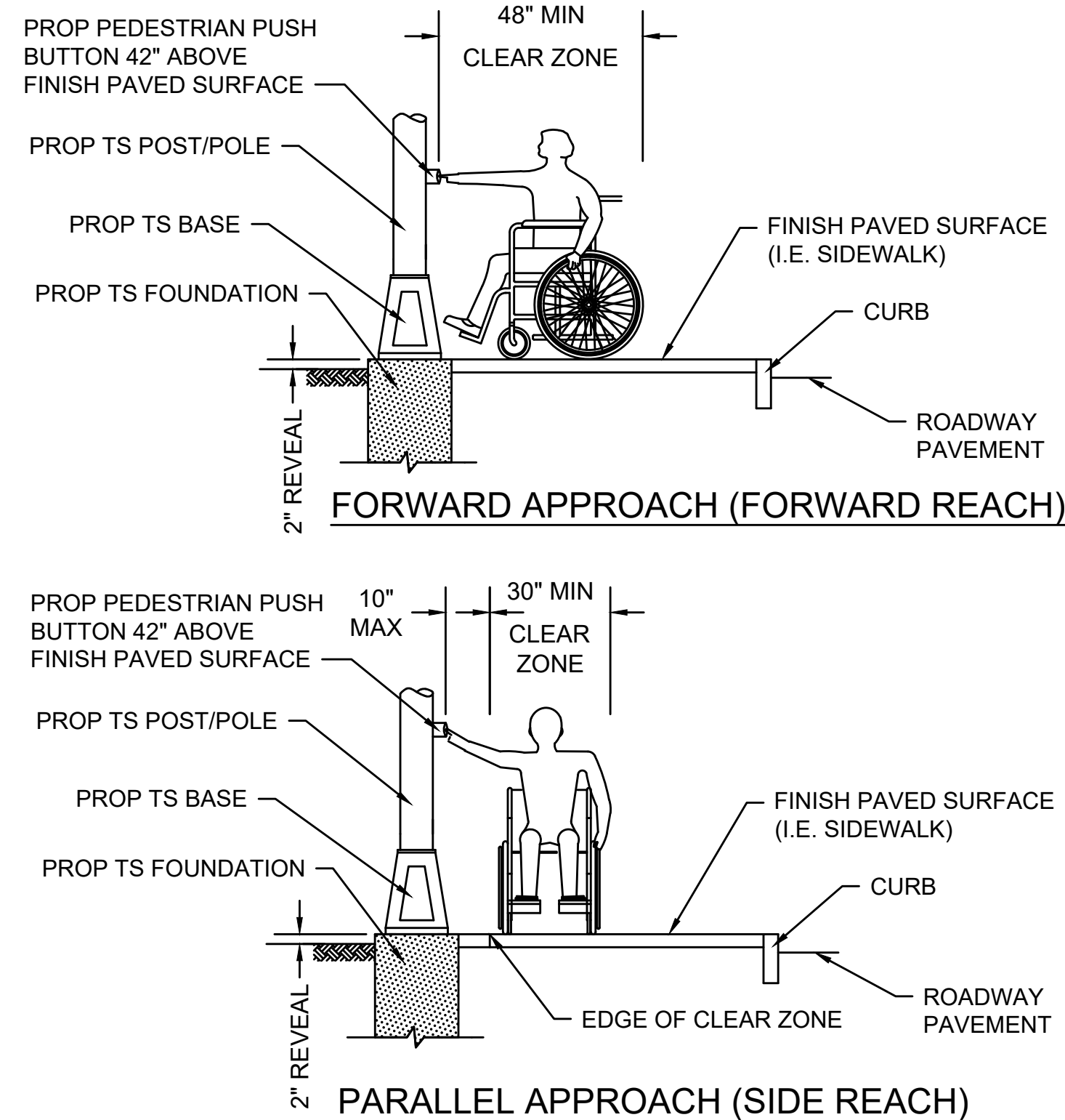
**CEMENT CONCRETE SIDEWALK W/ MONOLITHIC CURB**  
DWG: WALK-01      DATE: MARCH 2013  
SCALE: N.T.S.



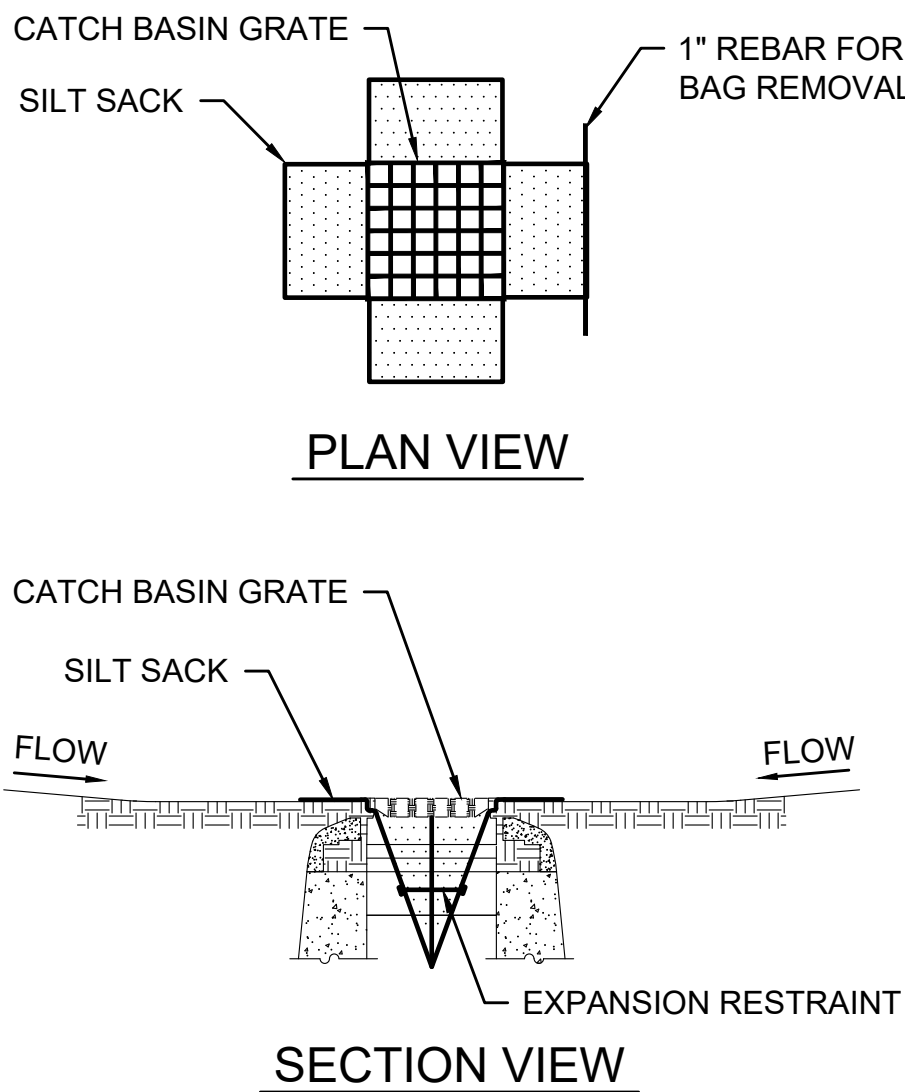
**GRANITE CURB IN EXISTING PAVEMENT**  
SCALE: N.T.S.



**CONTINENTAL-STYLE CROSSWALK - 12" WIDE LINES**  
SCALE: N.T.S.      DWG: PM-27      DATE: MAY 2017



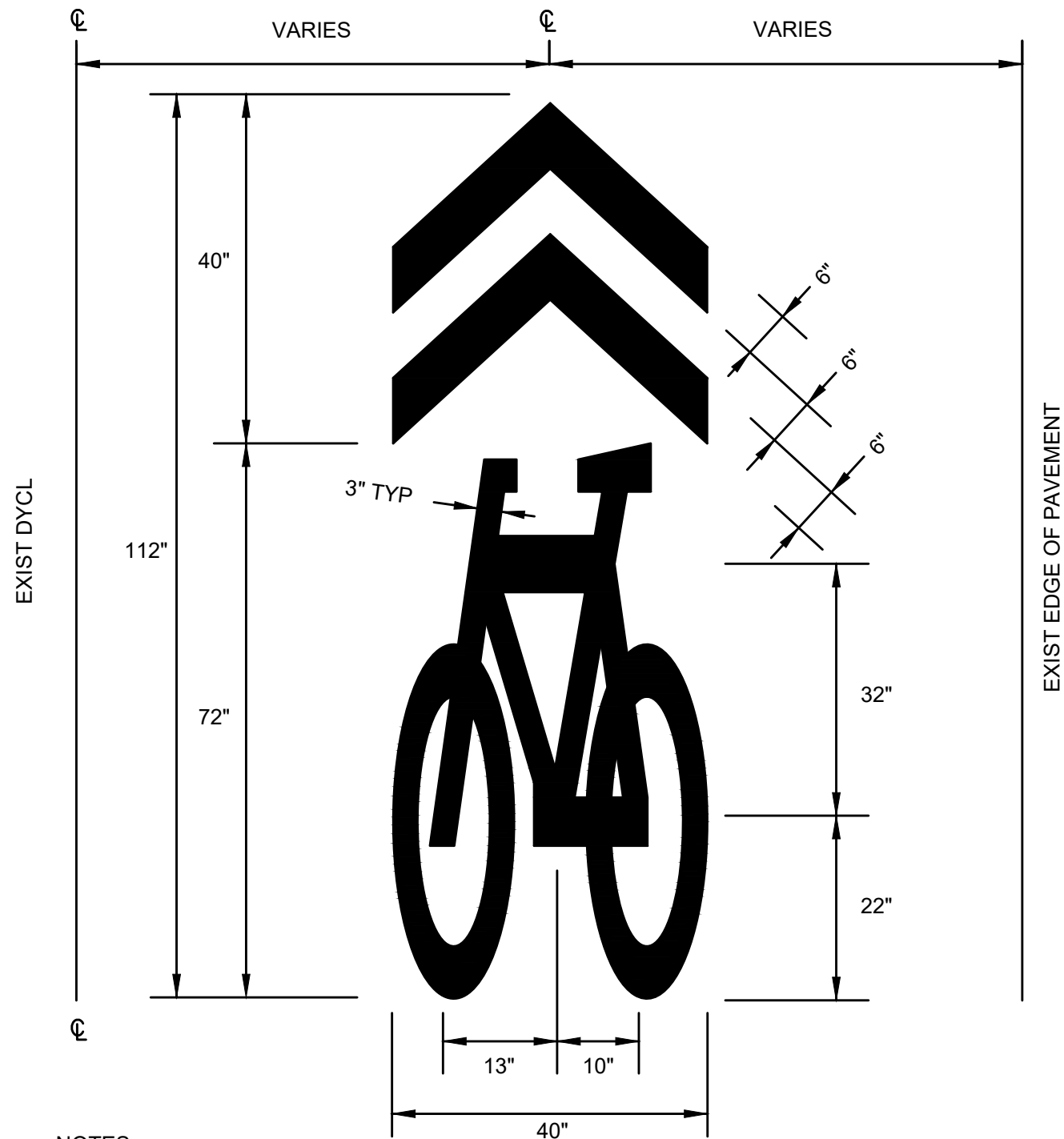
**PEDESTRIAN PUSH BUTTON CLEAR ZONE**  
SCALE: N.T.S.      DWG: PM-10      DATE: APRIL 2013



- NOTES:**
1. INSTALL SILT SACK IN EXISTING CATCH BASINS, BEFORE COMMENCING WORK, AND IN NEW CATCH BASINS IMMEDIATELY AFTER INSTALLATION OF STRUCTURE. MAINTAIN UNTIL BINDER COURSE PAVING IS COMPLETE OR A PERMANENT STAND OF GRASS HAS BEEN ESTABLISHED.
  2. GRATE TO BE PLACED OVER SILT SACK.
  3. SILT SACK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS AND CLEANING OR REPLACEMENT SHALL BE PERFORMED

**INLET PROTECTION - SILT SACK  
IN CATCH BASIN**  
SCALE: N.T.S.



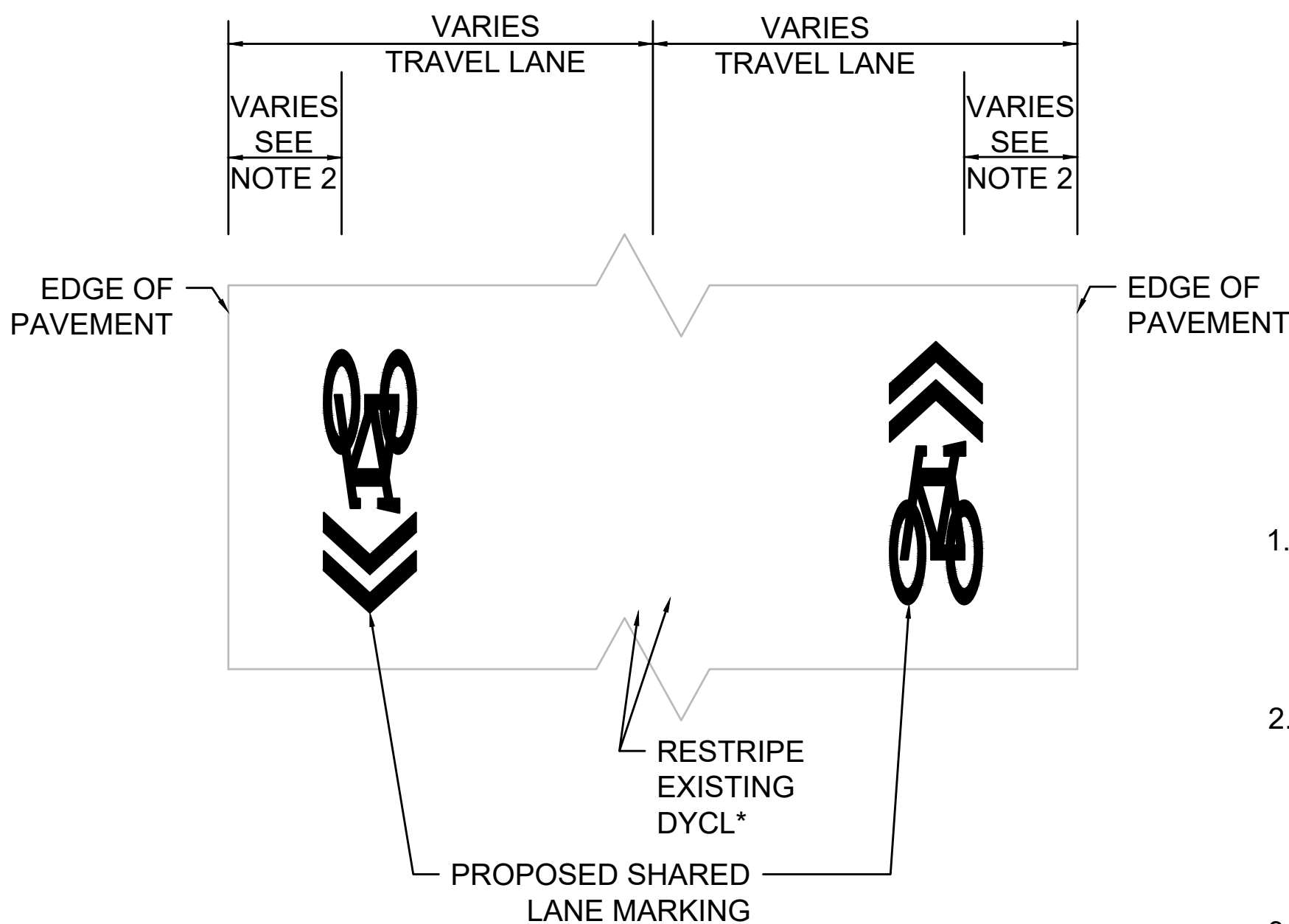


- NOTES:
- SEE MUTCD FIGURE 9C-9 FOR MORE INFORMATION.
  - SHARED LANE MARKINGS SHALL BE REFLECTORIZED PAINT.

SHARED LANE PAVEMENT MARKING LAYOUT

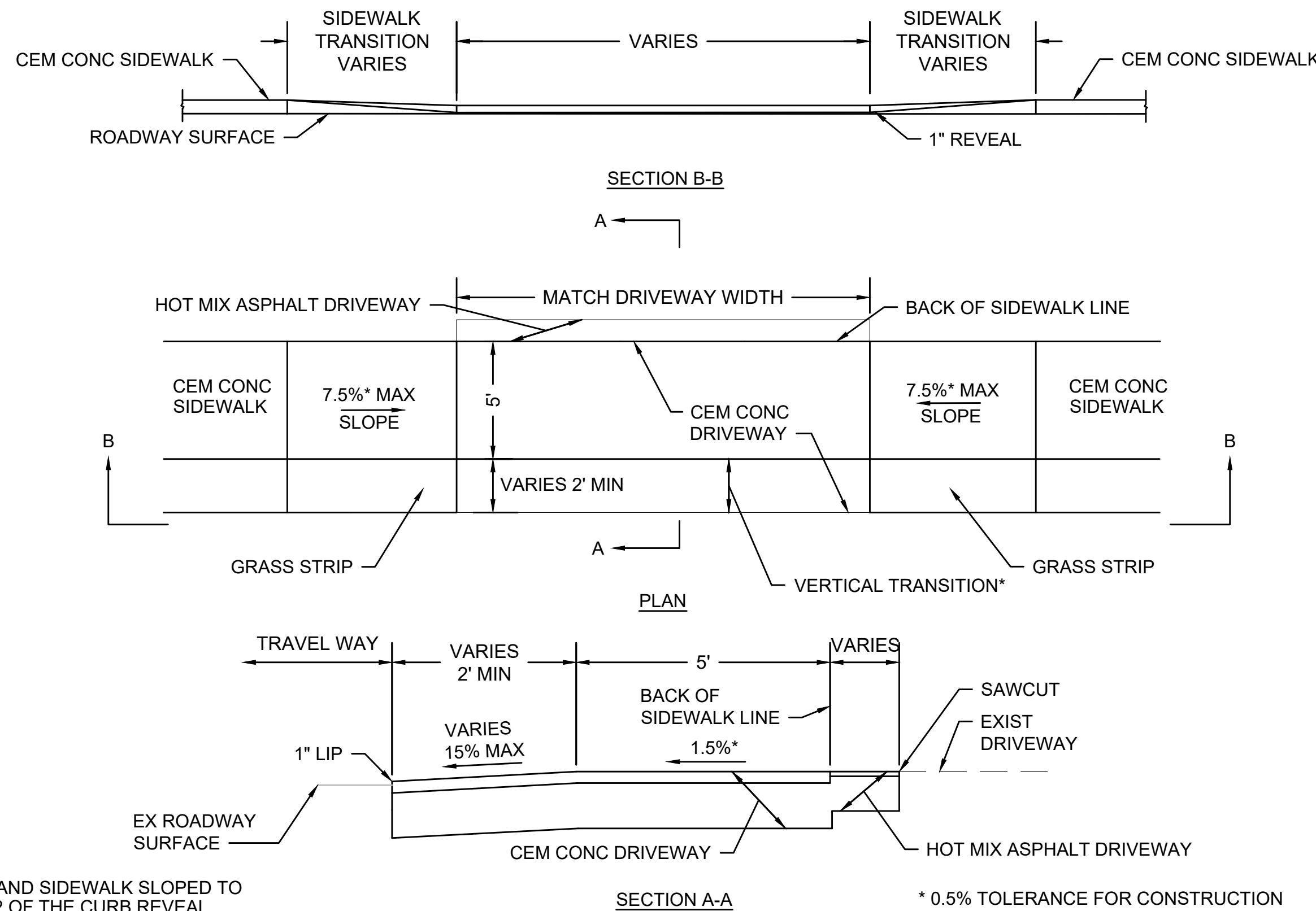
ABBREVIATIONS

DYCL DOUBLE YELLOW CENTER LINE  
SYCL SINGLE YELLOW CENTER LINE  
SWEL SINGLE WHITE EDGE LINE



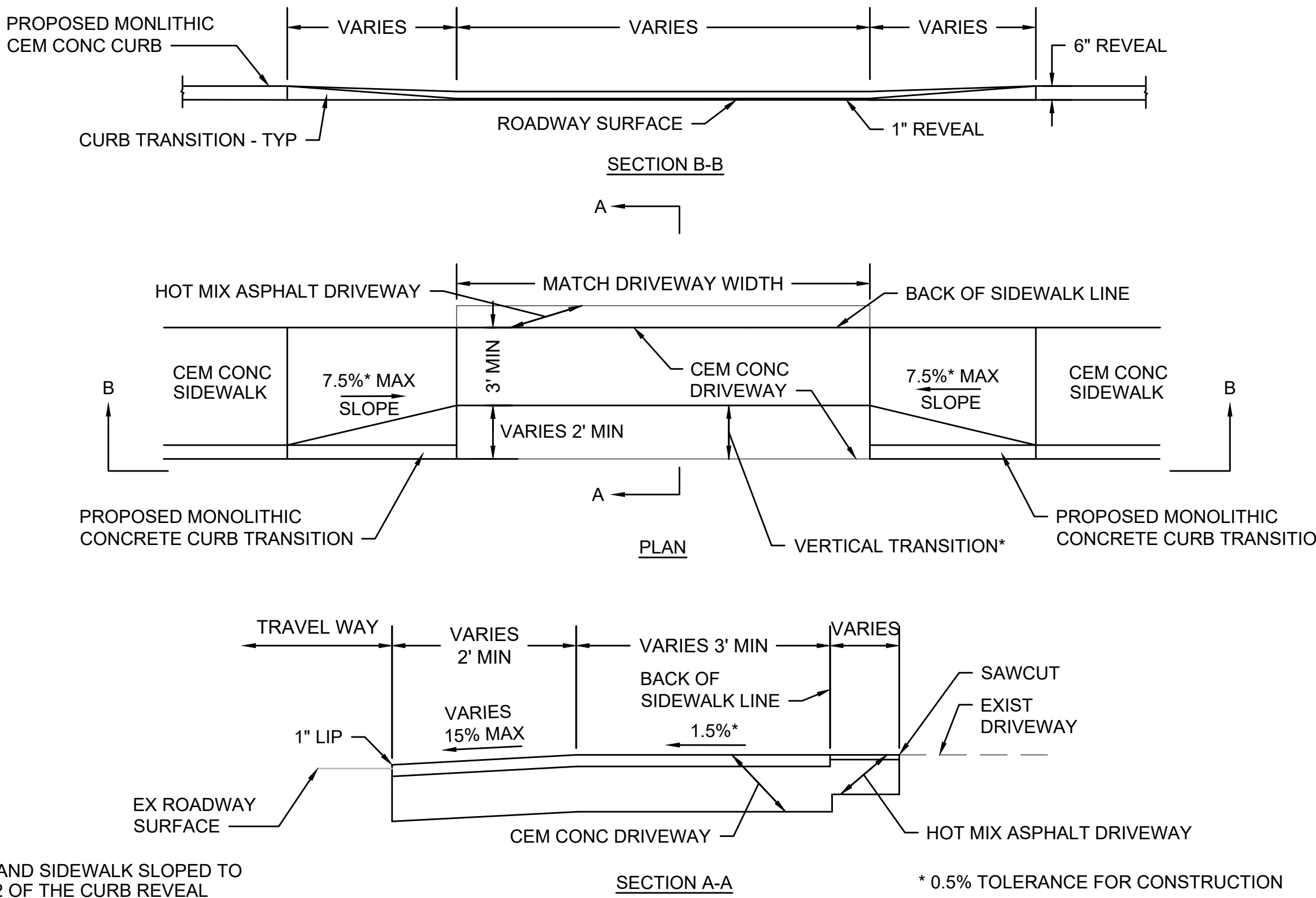
TYPICAL PAVEMENT MARKING SECTION

- THE SHARED LANE MARKING SHALL BE PLACED IMMEDIATELY AFTER AN INTERSECTION AND SPACED AT INTERVALS NOT GREATER THAN 250 FEET THEREAFTER.
- THE SHARED LANE MARKING SHALL BE PLACED 4' OFF OF THE EDGE OF PAVEMENT IF THE TRAVEL LANE IS AT LEAST 14' WIDE AND PLACED IN THE CENTER OF THE TRAVEL LANE IF THE TRAVEL LANE IS NARROWER THAN 14'.
- WHERE ON-STREET PARALLEL PARKING IS PRESENT, THE SHARED USE LANE MARKING SHALL BE PLACED IN THE CENTER OF THE TRAVEL LANE.



TYPICAL DRIVEWAY WITH GRASS STRIP

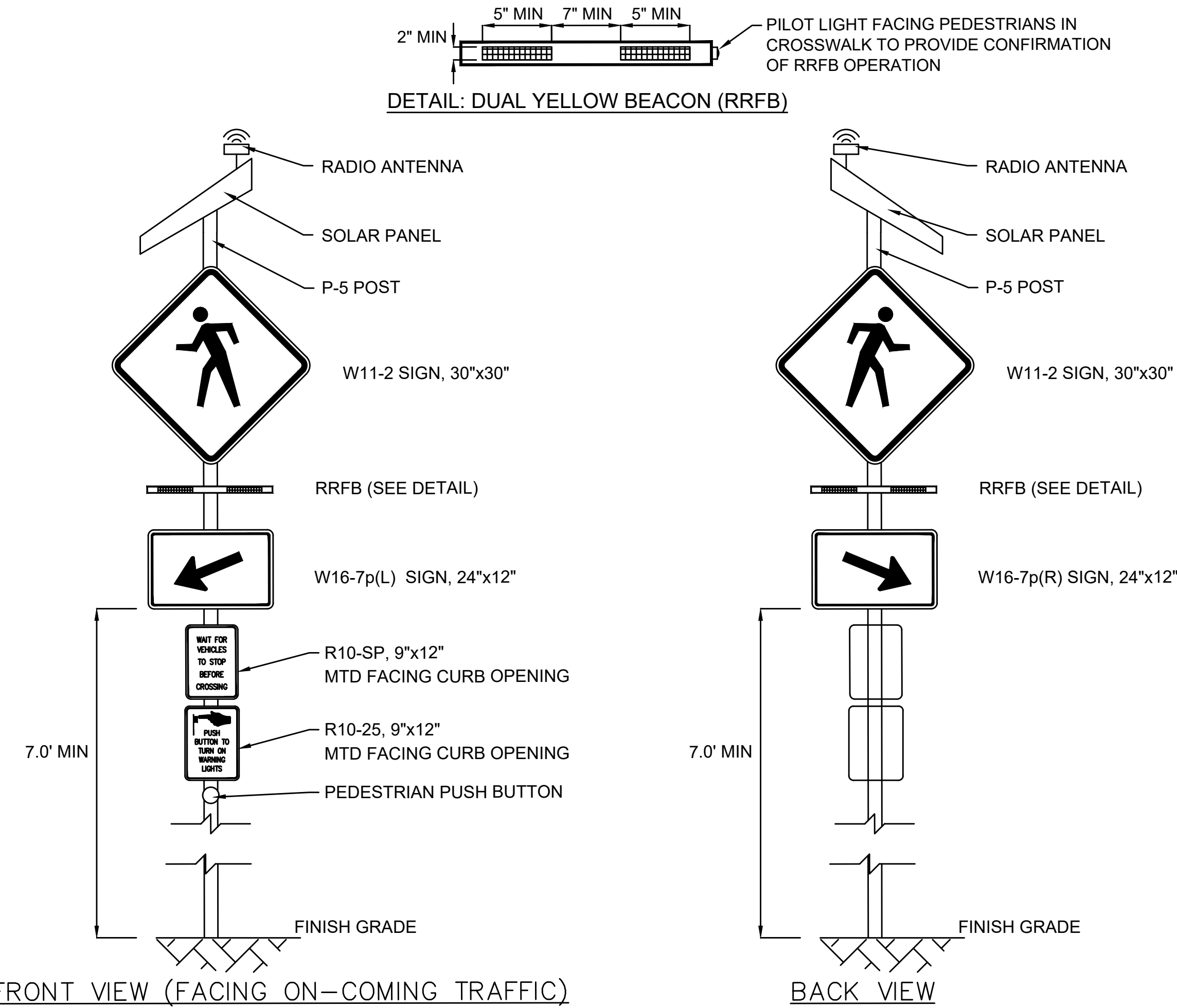
SCALE: N.T.S.



TYPICAL DRIVEWAY WITH SIDEWALK AND CONCRETE CURB

SCALE: N.T.S.





RECTANGULAR RAPID FLASHING  
BEACON (SOLAR POWER)

SCALE: N.T.S.

- OPERATIONAL NOTES:
- RRFBS SHALL WIG-WAG FLASH WHEN ACTIVATED BY PEDESTRIAN PUSH BUTTON.
  - DURATION OF RRFB UPON RECEIPT OF VALID PEDESTRIAN PUSH BUTTON ACTUATION SHALL BE INITIALLY SET FOR 15 SECONDS.
  - THE SYSTEM SHALL BE CAPABLE OF PROVIDING A FLASHING RATE OF 70 TO 80 CYCLES PER MINUTE.
  - SEE SPECIAL PROVISIONS, ITEM 824.211 & 824.212, FOR MORE DETAILS.

LIST OF MAJOR ITEMS REQUIRED		
ACTON STREET AT GLENDALE STREET		
PAY ITEM	QUANTITY	DESCRIPTION
824.211	2	15' TS POST STANDARD INCL. FOUNDATION
	4	L.E.D. RECTANGULAR RAPID FLASHING BEACON (RRFB)
	2	SOLAR PANEL
	2	RADIO ANTENNA
	2	PEDESTRIAN PUSH BUTTON W/R10-25

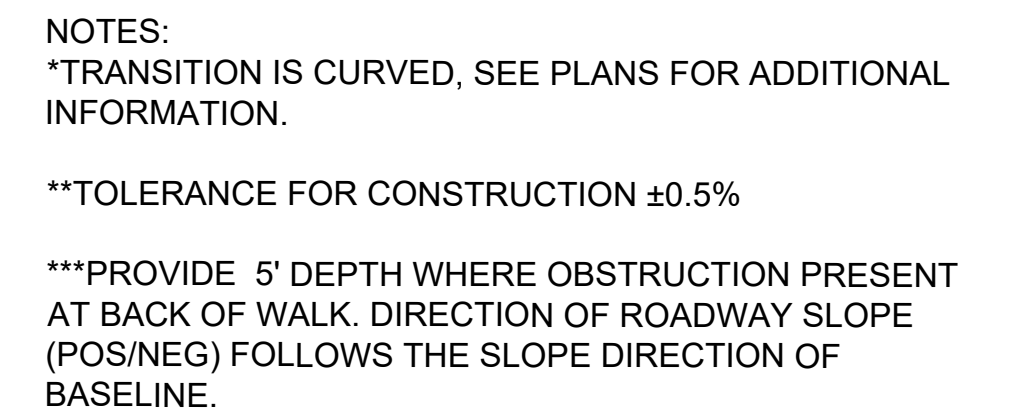
PLUS NECESSARY DUCT, CABLE, LABOR, MISCELLANEOUS MATERIAL AND EQUIPMENT TO COMPLETE THE INSTALLATION AND PROVIDE AN OPERATING RECTANGULAR RAPID FLASHING BEACON SYSTEM

LIST OF MAJOR ITEMS REQUIRED		
BROWN STREET		
PAY ITEM	QUANTITY	DESCRIPTION
824.212	4	15' TS POST STANDARD INCL. FOUNDATION
	6	L.E.D. RECTANGULAR RAPID FLASHING BEACON (RRFB)
	4	SOLAR PANEL
	4	RADIO ANTENNA
	2	PEDESTRIAN PUSH BUTTON W/R10-25

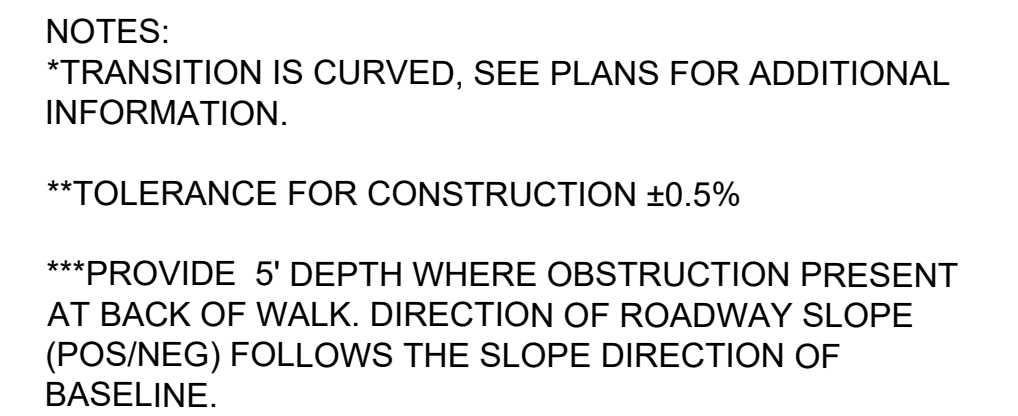
PLUS NECESSARY DUCT, CABLE, LABOR, MISCELLANEOUS MATERIAL AND EQUIPMENT TO COMPLETE THE INSTALLATION AND PROVIDE AN OPERATING RECTANGULAR RAPID FLASHING BEACON SYSTEM



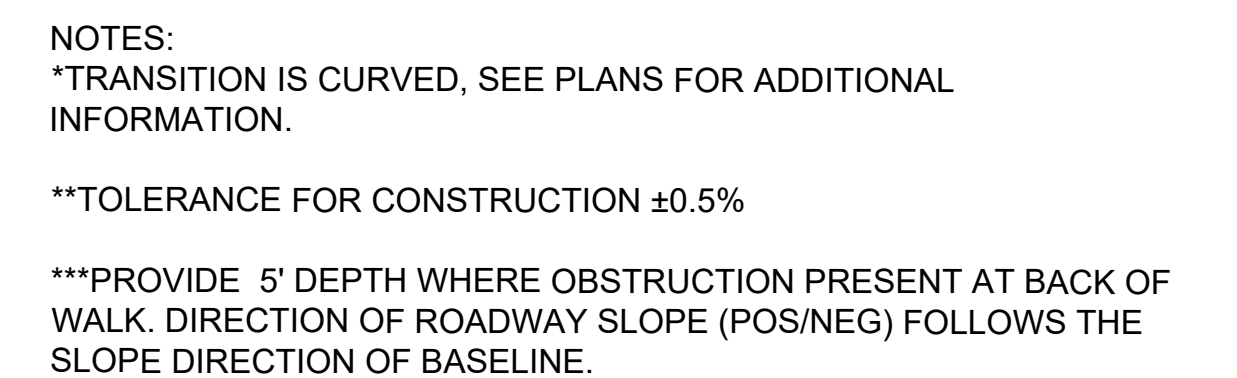
12293.00\_CS WCR.DWG Plotted on 18-May-2022 4:10 PM



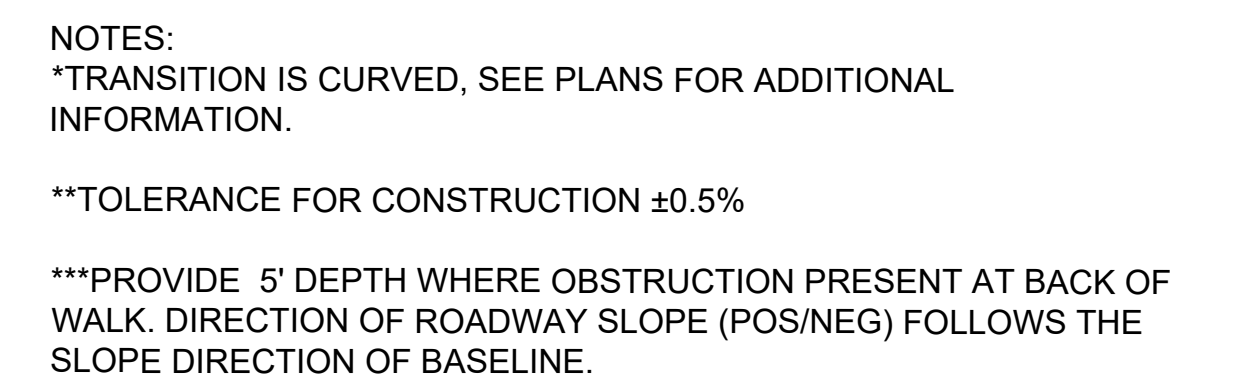
SCALE: N.T.S.



SCALE: N.T.S.



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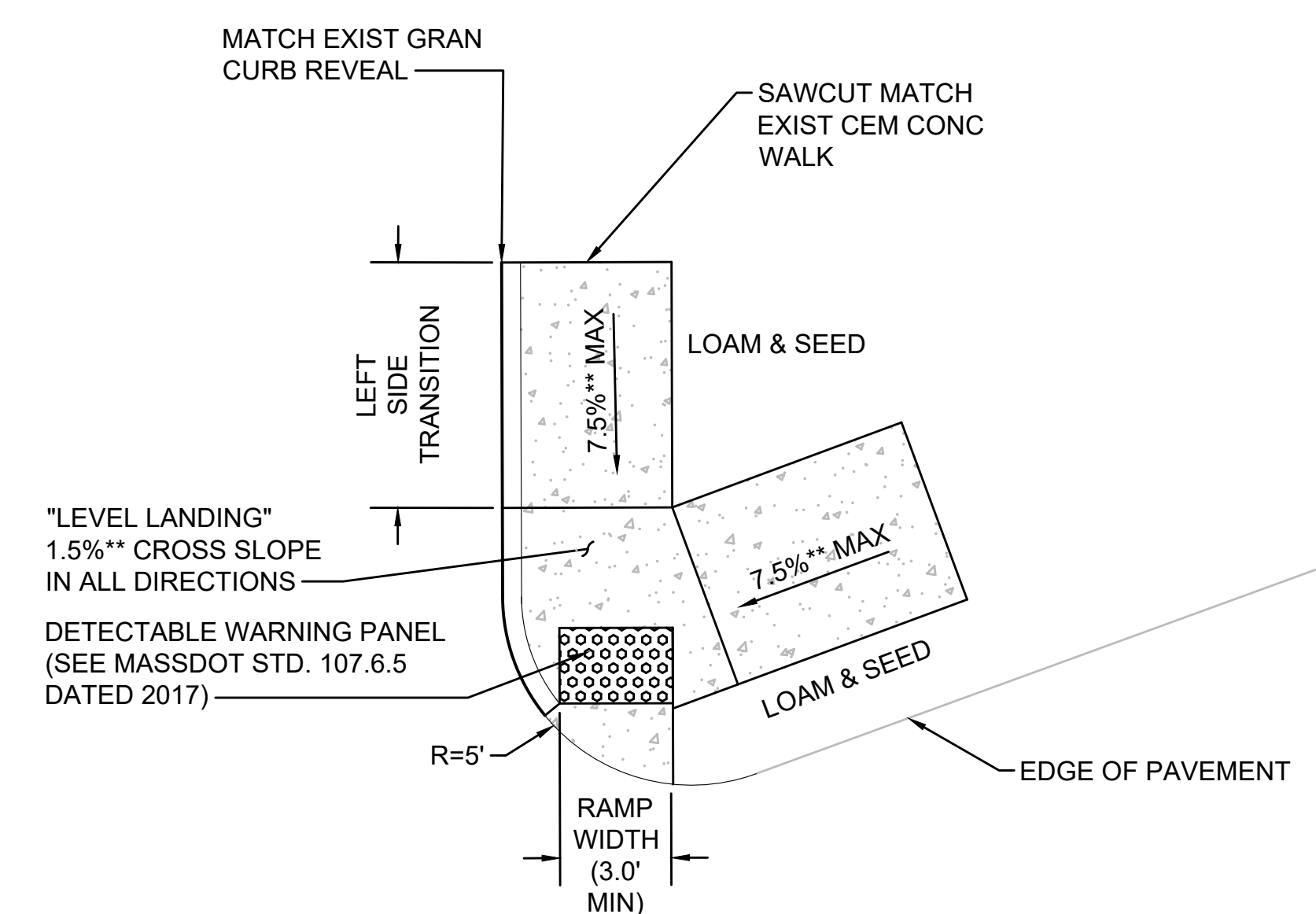


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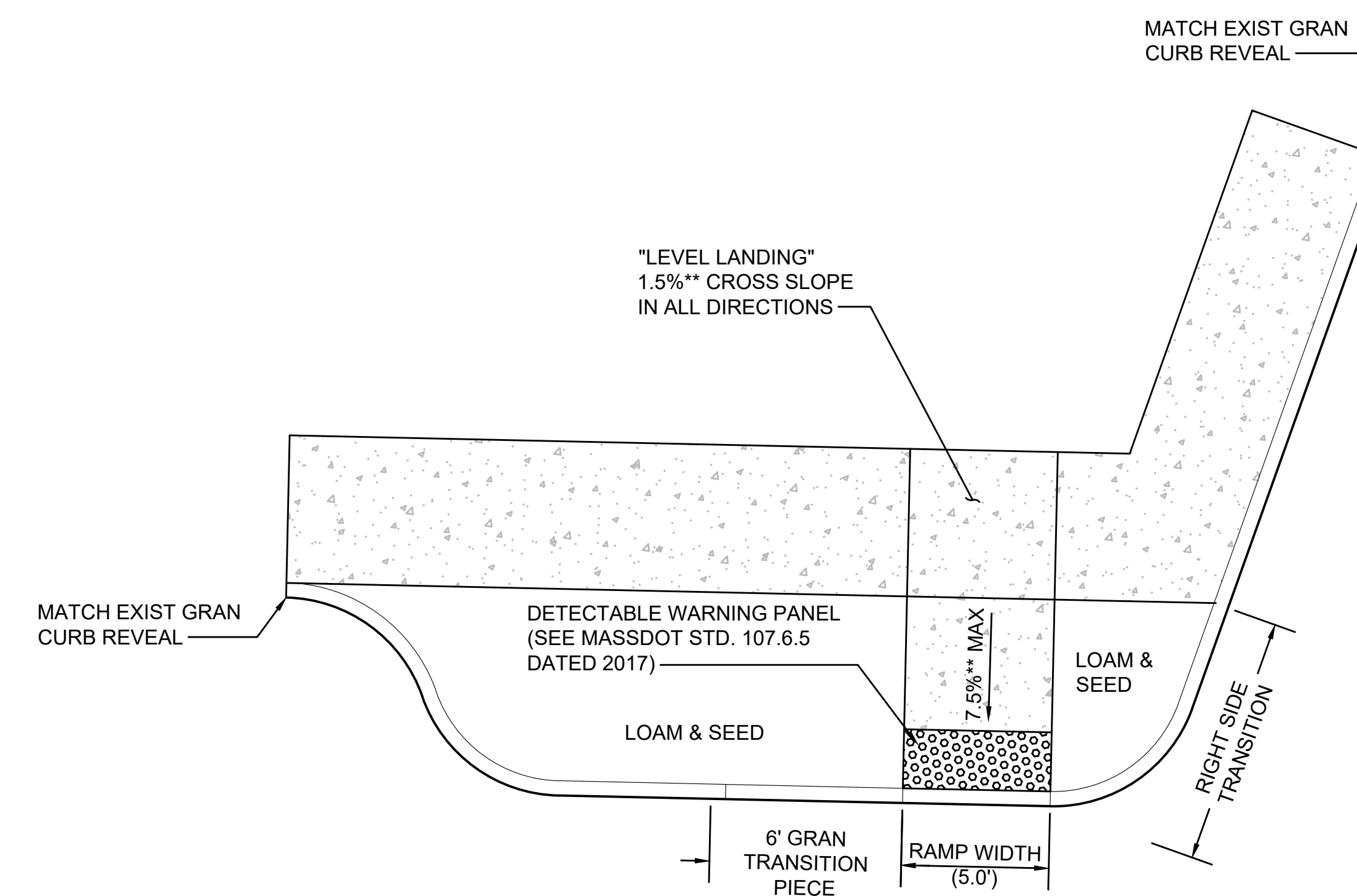
WHEELCHAIR RAMP AND DRIVEWAY TRANSITION LENGTHS	
ROADWAY PROFILE GRADE	*HIGH SIDE TRANSITION LENGTH
=0%	6' - 6"
>0% TO 1%	7' - 8"
>1% TO 2%	9' - 0"
>2% TO 3%	11' - 0"
>3% TO 4%	14' - 0"
>4% TO 5%	15' - 0" MAX

\*BASED ON A DESIGN SLOPE OF  
7.5% AND A REVEAL OF 6"



**PEDESTRIAN CURB RAMP - NORTHEAST CORNER OF  
ACTON STREET AT GLENDALE STREET**

SCALE: N.T.S.



**PEDESTRIAN CURB RAMP - NORTHWEST CORNER OF  
ACTON STREET AT GLENDALE STREET**

SCALE: N.T.S.